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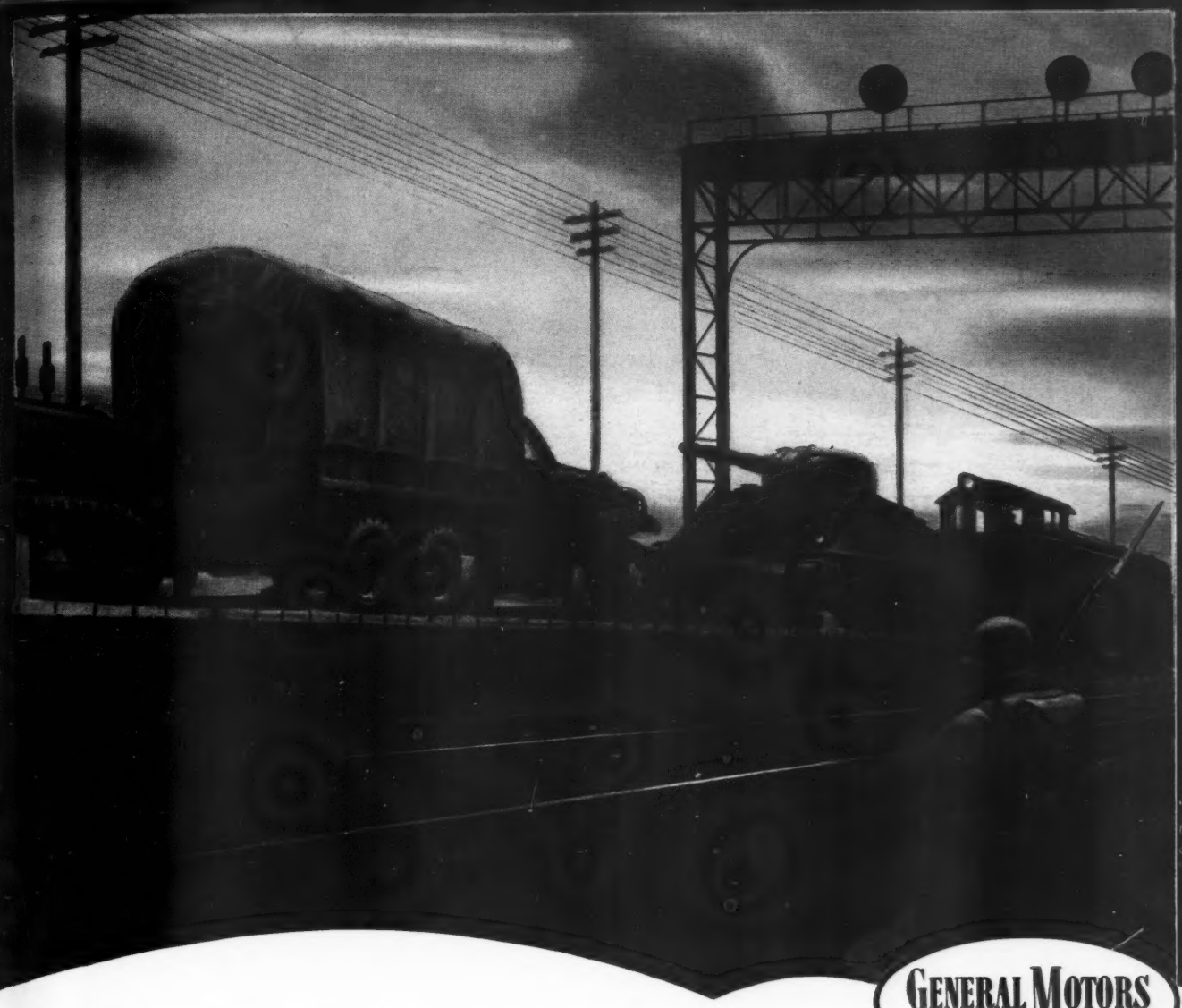

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Researchers have still not completed duties assigned to them by law, but have used their time instead on a 500-page report on interterritorial freight rates, a subject informally suggested to them by individual legislators.

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And thereby solves problem of mounting patronage of coach service which, with the rise in passenger business, had attained troublesome proportions by July, 1943.

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★

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The Week at a Glance

WHY ARMY EATS WELL: The Army in North Africa found itself in a hot climate—with practically no equipment suitable for handling perishables, until the predicament was made known to the boys of the Military Railway Service. These railroaders, under command of General Carl Gray, got on the job with customary railroad energy and ingenuity—and with improvised materials and technique, and practically no tools, converted other cars into refrigerators, the job being illustrated and described elsewhere in these pages. The Mediterranean Army thus owes to its railroaders, not only its efficient supply of munitions, but also its menu of perishables, enabling it to avoid having to eat most of its groceries out of tin cans.

●

PLANNING OR TALKING?: There is a great deal of talking going on about "post-war planning," but much less actual planning. The distinction is that the talk involves nothing more expensive than discussing what ought to be done, whereas real planning consists in getting the money together and placing the orders which will actually put men to work producing peace-time goods, when there are no more war orders to keep the wheels turning. This distinction is discussed in the leading editorial in this issue, with some suggestions as to the role which the railroads can well take upon themselves, to bear their share of the job of putting peace-time industry back on its feet again—under private, rather than governmental, auspices.

●

REAL RAILROAD PLANNING: To revive peace-time industry, and thus preclude political demands for large job-making public works programs, it will be necessary for private enterprise to be ready when the time comes with its own "large-scale programs". One of the important segments of industry—upon the activity of which the nation is dependent for full employment and prosperity—is that devoted, in peace-time, to the manufacture of railway equipment and supplies. These concerns do not now have "a large backlog of peace-time orders" to keep their forces occupied when peace comes—and the only place they can get this backlog is from the railways. The leading editorial suggests—as their contribution to genuine post-war, private-enterprise planning—that the carriers make known now what their needs are going to be, so their suppliers can prepare to do their part in restoring peace-time production, without undesirable delay.

●

DELUDING DIXIE: A critical review by the Southern railroads of the many bills in Congress, aiming to force uniformity of class rates throughout the country, is abstracted in a short article herein. An editorial suggests, if the South gets its uniform class rates as its unthinking politicians insist, the East will then be in an excellent position to demand and get equalized commodity rates. The South, in short, is running a grave risk of getting lower rates on kinds of traffic of which it has little, at the cost of accepting higher rates on the kinds upon which its productive energies are largely expended. The Southern railroads say to their shippers, in effect: "Don't take our say-so on this, but study these proposals and see what they will do to *your own* well-being."

●

THE BOARD REPORTS AGAIN: The Transportation Board of Investigation and Research has presented another annual report to Congress—reviewed elsewhere in these pages. These investigators confess that the jobs assigned to them by statute are still undone. They have, however, completed a 500-page report on interterritorial rates, which is not part of their statutory duty, and which they undertook at the behest of individual legislators; being further impelled, so the cynical say, because of burning zealotry on the part of some of the membership, for certain views in this area of inquiry; plus, perhaps, the hope that right-minded "research" of this subject might entail pleasant political rewards

●

TREASURY-TAPPING PLANS: The National Planning Association has come out with a report on air transportation, written by a gentleman until lately employed by the National Resources Planning Board. This report sees the air lines taking 75 per cent of the long-haul Pullman business, and possibly all of the first-class mail, away from the railroads, but being kind enough to leave to the railroads most of their freight traffic. In providing aviation facilities, the report goes on to say, "federal financing must play a larger role than in the past" (i.e., socialism in transportation should be further extended). The Planning Association has a disarming facade of business names among its sponsoring officialdom, but its printed matter indicates that its dominant philosophy is not much different from that of the recently deceased New Deal planning board.

●

ROADMASTERS PONDER: While the Roadmasters' Association is having no convention this year, its directorate and committee chairmen met in Chicago last week (as is reported in this issue), to progress study and understanding, contributing to better track work, which is the organization's principal function. Our review of this meeting includes the high points of the recommendations adopted, covering helpful suggestions for meeting the track department's most pressing war-time problems.

●

ASSIGNED COACH SPACE: Patronage of Southern Pacific passenger trains has been curtailed to the comfortable capacity of the trains' coaches, by a plan inaugurated on July 16 and described in a short article herein. Passengers are not assigned to definite seats, but total ticket sales for a given train are limited.

NAME FOR RR WOMEN?: The Army has its WACS and the Navy its WAVES, so why not have some such appropriate designation for women who have gone to work on the railroads? Such is the interesting suggestion in a communication published herein, from a reader who believes that adoption of such a term would accord the girls deserved recognition—and, possibly, further popularize railroad work as a war-time occupation for women.

●

BOX-BAGGAGE CARS: Handling troops makes abnormal demands on baggage car supply and the Canadian National has met the situation with some box cars (described and illustrated herein) which are fitted for movement in passenger trains. Brakes automatically adjust themselves to passenger operation—and the cars are fitted with steam and signal train lines, and steel-tired wheels. Lighting is provided by jumper connection to the adjoining car.

●

TIME TO SLOW DOWN?: The unused service life in the present equipment being as meager as it is, with no foreseeable recession in traffic's demands thereon, an editorial in this issue suggests that slowing down the fastest services may be a wise expedient. General deceleration is not advocated—critical attention being concentrated only on those speeds which, probably, give rise to maintenance work of a magnitude disproportionate to the larger transportation production which high speeds may seem, at first, to yield.

●

TIGHTER CAR SUPPLY: Only by surpassing present superlative performance in using cars will the railroads be able to deal with the fall traffic peak successfully—so Warren Kendall warns in a statement reviewed in our news pages. The aggregate loadings in the first half of this year, he reminds us, were 4.6 per cent *less* than in 1942—while ton-miles *increased* 20.6 per cent. Daily car-mileage, meantime, experienced no decline, despite an increase in the average load from 37.6 to 40.6 tons. But carloadings are now running ahead of last year, indicating what a job lies ahead in successfully surmounting the year's October hump.

●

HOPEFUL NON-OPS: The magnates of the non-operating unions got in to see Mr. Roosevelt on September 16 about their proposed wage increase, held up on them by Stabilizer Fred Vinson, and George Harrison announced that he is hopeful of the result of Presidential intervention.

●

FECKLESS PILGRIMAGE: Southern governors went out to Denver last week to meet Western governors, with the principal purpose (supposedly) of securing support from the latter for the Southern politicians' plan for equalizing the nation's class rate structure. The Western governors refused to participate in the campaign and also declined an invitation for a further conference on the question.

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Efficiency FOR VICTORY

Make Post-War Planning Definite

If "planning" by private industry for the post-war period is to be effective and valuable, it will have to be much more definite than mere talk about planning. It will have to be given the form, while the war is continuing, of specific decisions by chief executives and boards of directors that, as soon after the war ends as possible, they will begin making definite expenditures for definite purposes and things. And the funds for these expenditures will have to be made available in advance for immediate use. To do such definite planning while the problems of production and transportation for war are still consuming so much time and energy will be difficult. But if it is not done during the war, the problems presented to private enterprise after the war may prove very difficult, or even insoluble.

This paper repeatedly has called attention to the large "backlogs of public works" being built up for national, state and local expenditures immediately following the war (for example, *Railway Age*, August 28, page 333, and September 18, page 443), and to the fact that much of the proposed expenditures would provide increased subsidized competition with the railways. In our issue of August 28 we criticized the "Citizens' Postwar Construction Council" of Missouri because its objective according to a report published in a Kansas City newspaper, is "to prepare small communities (throughout Missouri) so they can share in federal public works grants, which may come with a rush when peace is declared." We have been sent a copy of the "Statement of Policy" of this organization which sets forth, among other things, that it "will use every possible means of encouraging each community and each subdivision of the government to finance its own projects and not depend on federal financing, except in case of greatest emergency." There can be no reasonable criticism of this policy, if it means that government expenditures, federal, state or local, should be confined to real public works, and not used to subsidize competition with railroads or other forms of private enterprise.

It remains a fact, however, that huge post-war government expenditures, most of which would increase subsidized competition with railways, builders of housing, and many other forms of private enterprise, are being definitely planned, upon the theory that they will be necessary to prevent a great slump of employment. To prove, if possible, that such government expenditures will be unnecessary, private enterprise should, on as large a scale as practicable, definitely plan and announce in advance the expenditures for rehabilitation, improvements and expansion that after the war it intends beginning to make.

Take, for an important example, the situation with which many manufacturers of railway equipment and supplies will be confronted. They are now engaged largely, preponderantly, or, perhaps, almost exclusively in producing for the government. They will be ordered largely or wholly to stop producing for it. They cannot keep many thousands of men employed doing nothing. They can keep many or most of their employees at work only if they can start immediately on filling large orders from the railways, which, obviousy, they cannot do unless the orders from the railways are available.

There will be sufficient reason, besides the purpose of helping provide employment, why the railways should immediately make large orders available. There will be vastly more worn out and obsolete railway equipment and other facilities than ever before. The railways will carry over large funds available for buying in the post-war because of their inability, owing to government restrictions on materials, to buy all they have needed during the war years. But

unnecessary delay by the railways and other industries in placing large post-war orders would be dangerous because of the needless unemployment it would probably cause. Post-war "planning" by private enterprise must be definite planning to place definite orders promptly if it is to be of real value to private enterprise.

Material Priorities

One of the outgrowths of the war is the tremendous demand for a wide variety of materials for the use of our armed forces and those of our allies, here and abroad. This has created widespread shortages of many basic materials for civilian use and given rise to the allocation by the War Production Board of the supplies that are available in an effort to direct them into the most important channels. In theory and in administration in general, the plan deserves commendation.

Here and there, however, deficiencies appear, which are due in part to over-zealous direction by persons unfamiliar with practical operations.

Especially serious is the lack of appreciation in some quarters of the fact that the railways are not static, but constantly changing properties meeting new conditions constantly as they arise. Especially is this true when, as now, new camps, new factories and other conditions growing out of the war effort arise almost over night to change the traffic characteristics of a line or an entire railway.

Flexibility in procedure has long been needed by the railways to meet changing conditions. It is doubly necessary today. Yet this flexibility is greatly reduced by the routine which has been set up for the granting of authority for the undertaking of new projects or necessary alterations in existing facilities and for the securing of the materials required therefore. To an experienced railway officer who is trained to face and solve new problems as they arise, the delays, correspondence and confusion growing out of government control raise questions as to whether those responsible realize that there is a war on. Furthermore, railway men are so trained that when an emergency arises the man on the ground is expected to take such measures as the situation may require and is given much discretion and freedom of action. It is largely because of such training, gained in the school of floods, blizzards, wrecks, fires and other interruptions of the even flow of traffic, that the railways show the resourcefulness they do in meeting disasters, large and small.

Yet this initiative and freedom of action are today being circumscribed by so many rules and regulations, particularly in the use of materials, that efficiency in the revision and maintenance of the properties is being seriously reduced when it should be at its highest level. The situation is becoming so involved that high railway construction and maintenance officers are being required to spend altogether too much time in explaining and re-explaning which should be directed to the prosecution of work; and some of them are becoming so bound about with red tape that they are not exercising the initiative that they have exercised heretofore and that present exigencies require.

When military officers are warning the railways that still greater performance is to be expected of them, it is pertinent to direct attention to the acceleration of activities that would follow simplification of the restrictions that now surround the allocation and use of many of the materials that the railways need in order to provide the additional facilities that are so necessary now and that will be even more vital tomorrow.

Is High Speed Costing Us Too Much?

The opinion has been expressed by mechanical officers on numerous occasions that consideration might well be given to the idea of reducing the top speeds of trains in both freight and passenger service. Back of these expressions there has usually been the compelling motive of safety of operation but, in the last twelve months particularly, the mechanical man has had a reason equally as compelling—the problem of protecting the service life of motive power and rolling stock.

Unfortunately, data which might point to conclusive evidence to the effect that high operating speeds have a decided influence on maintenance costs and the length of service which may be expected from a piece of equipment are not readily available. Experience, however, over a period of years will, in this case, offer an accurate substitute to demonstrate the influence of speed on service life. It is not unreasonable to assume that practically all types of mechanical equipment, whether locomotives, cars, automobiles, machine tools or airplanes are subject to the same principles and in the latter three types there is plenty of technical data to show that the last 20 per cent in the speed range is the increment that costs the most money for maintenance and has the greatest effect in shortening the ultimate term of service. It has been well demonstrated, in the case of the automobile, that an increase in average speed from 45 to 60 m.p.h. may easily double the cost of maintenance and shorten its life by one-third. Is there any reason to believe that similar data on locomotives might prove their case to be any different?

We have now reached a point in the wartime operation of our railroads where we must face some rather obvious facts. For months we have been utilizing motive power and car equipment at monthly rates which, with few exceptions, has exceeded the highest of peacetime peaks. One need only to study the mo-

tive power situation, month by month, to realize that some time ago the reserve which railroad men usually consider necessary for the adequate protection of good service was reduced to practically nothing and that for some time we have been running out serviceable locomotive mileage more rapidly than it can be replaced.

We can afford to take no chances with failures of operation from any cause whatsoever. So, therefore, the necessity of providing some motive power reserve, in one way or another, can be denied only on the ground that we know that traffic will not increase above its present levels. The indicators do not point in that direction. Reserve can be established by the acquisition of new power but the competition for materials between industry and the military services places a definite limit on the amount of new power the roads can reasonably expect. The same competition for materials, plus obsolete shop equipment and manpower troubles, seems to operate against increasing shop output as a means of building up reserve.

It is quite possible, therefore, that we may have reached a point where we should consider reducing top train speeds as a wartime measure, at least as a means of prolonging equipment life. Whatever sacrifices in over-all running time may be required as a result can probably be compensated for by the reduction in the number of delays caused by engine failures and by better dispatching.

Our wartime objective should be to keep trains moving—but not at the expense of a steadily diminishing backlog of serviceable locomotive-miles.

Politicians and Uniform Freight Rates

The unsupported claims southern politicians are making in promoting legislation by Congress to establish uniform freight rates throughout the country are illustrated by assertions made recently by Senator Stewart of Tennessee. The declared purpose of the proposed legislation is to correct alleged unfair discriminations in class rates—i.e., on manufactured products—against the south and west and in favor of the east.

Senator Stewart asserted the government during the war is paying more than 40 per cent of the nation's total freight bill; that for 1943 the government's part of the bill will be $2 billion $700 million; and that income taxes would be less if the country had uniform freight rates. Uniformity would have to be secured by reducing some rates and advancing others; but evidently he believes it could be secured by making only reductions.

He neglected to say that the railways are paying a huge amount of federal income taxes, and that a reduction of their rates and earnings would reduce the income taxes the government is getting from them relatively far more than it would reduce the income taxes it is getting from all other sources. In the year ended June 30, 1943, freight earnings of the railways were 29 per cent, or $1 billion $463 million, more than in the year ended June 30, 1942, and their federal income taxes 200 per cent, or $768 million, more—having increased from $382 million to $1 billion $150 million. The railways had to incur a large increase in operating expense to handle the additional freight traffic; and yet the *increase in their federal taxes alone* consumed 53 per cent of the increase in *gross earnings* that they derived from it. Who would Senator Stewart have bear the huge amount of federal income taxes being paid by the railways if the railways were made unable to pay it?

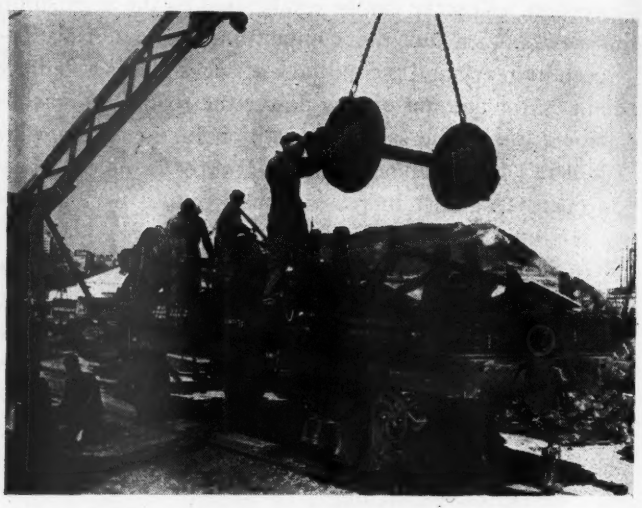
Senator Stewart further asserted that, because of lack of uniformity in class rates, the south has to pay 39 per cent more and the west 28 to 84 per cent more for shipping goods on these rates than shippers in eastern territory. We cannot imagine where the wise senator got any such figures; but, if correct, they would demonstrate grossly unfair discrimination in favor of those southern and western shippers, and against those eastern shippers, whose freight does not move on class rates. Considering the differences in density of traffic, there is remarkably little difference in revenue per ton-mile in the three territories. The density of traffic (ton-miles per mile of road per day) in the west in the first five months of 1943 was only 5,082; in the south, exclusive of the Pocahontas coal-producing region, 7,910; and in the east, 14,160. Average revenue per ton-mile from all the freight moved in the south was 8.69 mills; in the south exclusive of the Pocahontas region, 9.64 mills; in the west, 9.78 mills; and in the east, 9.53 mills.

If there were reason for uniformity in class rates throughout the country, there would also be reason for uniformity throughout the country in "commodity" rates, on which the great bulk of all traffic is handled. There is only one practicable uniform basis. That is distance—mileage. Therefore, if the reasoning of Senator Stewart and other southern politicians is correct, then all rates, class and commodity, should be readjusted on a mileage basis. The present averages per ton-mile in the three territories being so nearly the same, if this caused reductions in class rates per mile in the south and west, it would also cause increases in most commodity rates per mile in the south and west. But most producers in the south and west are much farther from their principal markets than are most producers in the east.

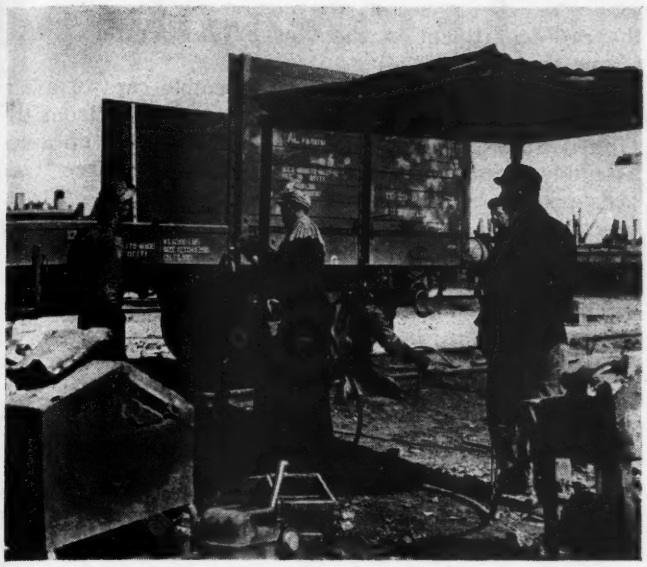
It necessarily follows that the rate-making policy favored by southern politicians would be destructive of the interest of most producers in the south and west and of all who are dependent on them in their territory for business and employment.

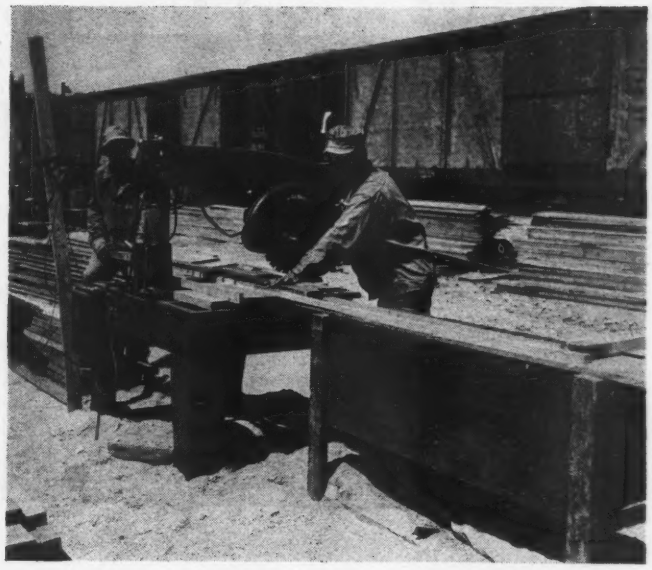
Why, then, do southern politicians advocate this policy? Because they are talking for their own political purposes about something that they know little or nothing about.

Army Railroaders Build Reefers in North Africa

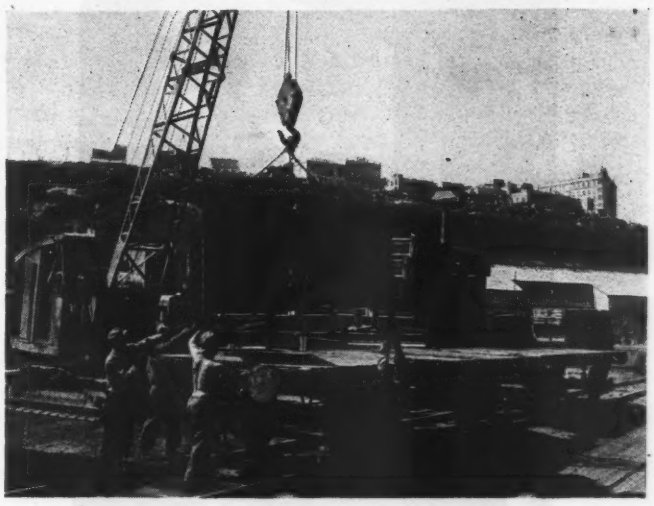


ABOVE: *Left,* Brigadier General Carl R. Gray, Jr., Director General of the Military Railway Service, Does a Yard Check on His New Reefers. *Right,* a 40-Ton Underframe, Bottom Side Up on Another Car, Gets Its Wheel and Brake Assembly (Men at Rear Applying Truck Pedestal Binders). BELOW: Lt. T. E. Wiley Looks on While Pvt. Ted C. Seifert Puts Finishing Touches on an Ice-Hatch in the Roof of One of the Improvised Refrigerator Cars





ABOVE: *Left,* T/4 Arthur Groff, Pvt. Fred W. Meyer, Pfc. Thomas W. Carpenter and Pfc. Cletus A. Ripplinger Are a Riveting Team, Putting Gondola Body on Its Underframe. RIGHT: *Top,* Power Saw Is Only Piece of Machinery These Boys Have for Their Job of Making Reefers. *Middle,* Cpl. Hal W. Orr, Cpl. Stanley E. Foster, Pvt. Wm. Losievski and Pfc. Joseph Kovach Swing Gondola Body Onto Frame Which Has Its Buffers

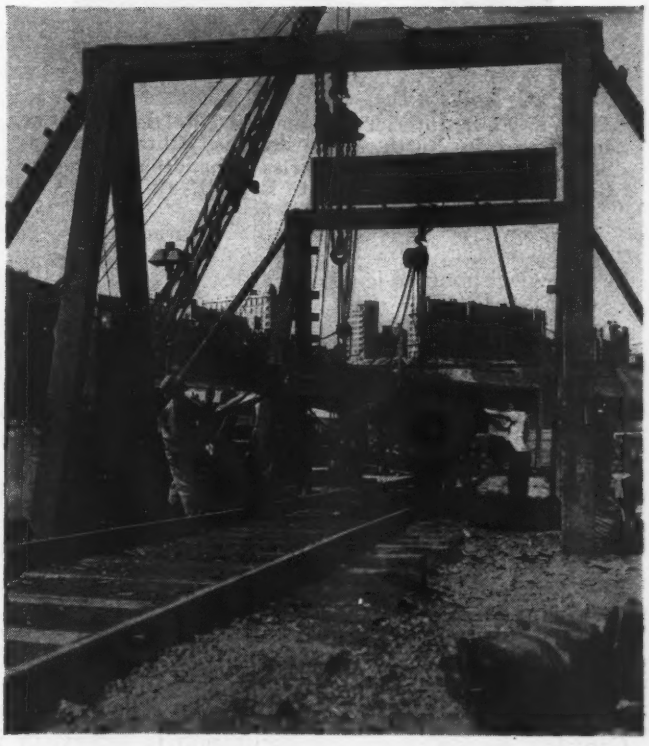


THE Military Railway Service, in North Africa, commanded by Brigadier General Carl R. Gray, Jr., has greatly improved what would otherwise have been small rations of perishable foods for our troops. The Military Railway Service made this contribution to better eating by their fellow-soldiers by improvising the construction, in Africa, of a considerable number of refrigerator cars.

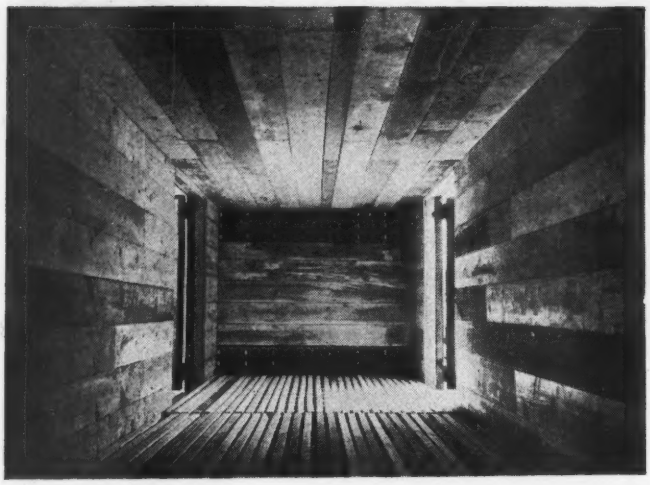
The civilian railroads in North Africa could muster only 44 small refrigerator cars—far too few when split three ways for use by the French, American and British armies—to handle any large quantity of perishables. For a solution to their needs the allied leaders turned to Director General Gray of the Military Railway Service, and, as usual, he came up with the right answer.

The first step taken, as a temporary expedient, was the conversion of a score of new U. S. A. 20-ton boxcars into reefers. This was a help, of course, but still insufficient to meet the increasing demands of British and American forces, so as a definite solution General Gray proposed the adaptation of several new U. S. A. 40-ft., 40-ton cars for the transportation of perishable foods.

There were a number of the 40-ft. frames on hand. These were being used on freight hauls as flatcars without the superstructure. By adding the tops and insulating the interior with granulated cork, it was found that these cars could be made to provide refrigeration service quite comparable with standard American reefers. Bunkers were built into each end to provide space for 13,384 lb. of ice, and it was found that with proper salting this would give first-class service up to



RIGHT: Wheels Having Been Applied Wrong-Side-Up, Car Is Turned Over Onto Rails



ABOVE, *First*, Interior of Completed Refrigerator Car, Improvised in North Africa by the Military Railway Service. *Second*, T/Sgt. Charles Schmidtbauer Applies Granulated Cork Insulation to Repel Heat, Retain Cold

48 hours without re-icing. A space of some 1200 cu. ft. was left between the bunkers for hanging meat.

Some indication of the extra materials required to complete the conversion can be gained from a glance at the list prepared for the first sample car: 23 rolls of asphalt roofing paper; 51 pieces of plywood ½ in. by 48 in. by 84 in.; two pieces of plywood ¾ in. by 48 in. by 72 in.; 364 cu. ft. granulated cork; 355 pieces yellow pine of various lengths; 50 lb. wire staples; 225 lb. nails; one roll heavy duck canvas 7 ft. wide; 340 bolts, nuts and washers; 4 ft. of 1½ in. pipe; one roll 1 in. wire mesh; strap and bar iron for door fixtures; washers; flat-head screws; hasps and staples.

Credit for putting General Gray's plan into effect goes to a car-building company of one of the Military Railway Service units based in North Africa under command of Captain Frank J. Kossuth of Indianapolis, Ind. Captain's Kossuth's civilian occupation is supervisor in the car department of the New York Central's Beech Grove shops.

The job of this outfit was to assemble cars of many types shipped into the North African theater from the United States. It was not an easy task to set up a car assembly plant where none existed before. Three track beds had to be laid, overhead cranes and "A" frames erected, and a tool room and machine shop constructed for the manufacture and repair of many tools not available in Africa.

These soldier-shopmen followed the tactics of allied bomber crews in working "around the clock" in three shifts, with a special lighting system installed for the night tricks.

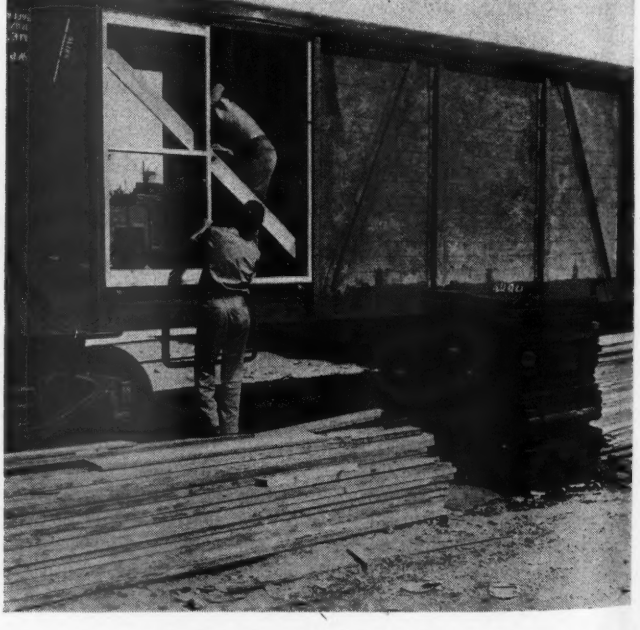
More Appetizing Food for Fighting Men

A test run of the first sample 40-ft. reefer turned out under this system was so satisfactory that requests for duplicates were made immediately. A check midway along the run showed that in spite of a temperature of 125 deg. outside, 75 per cent of the original ice was still intact. There was some melting around the canvas-lined doors, but the perishable foods in the body of the car were in perfect condition. Later runs disclosed that air circulation was sometimes cut off by meat packed too close to the top of the car, but this was remedied.

After the new 40-ton reefers were finished, it was first considered that the 20-ton cars first converted would be stripped of their ice bunkers and returned to normal boxcar service, but it was discovered that their use, particularly in the transportation of vegetables, was still in great demand and merited their retention.

With fresh meat and vegetables replacing "C" rations, and that everlasting tinned luncheon meat of last winter's Tunisian campaign, smiles in Army chow lines reflect the results of M. R. S. efforts to move perishable foods by rail.

[**This report and photographs came direct from Army sources, from the Allied Force Headquarters in North Africa.*]



Pfc. Robert Freere and S/Sgt. Elmer B. Long Install Door Frame in a Reefer—A Stack of Insulating Cork Visible in the Foreground

Roadmasters Carry on Their Work Without Convention

Executive committee, supplemented by 40 key members, holds one-day business session, discusses and releases reports and plans new investigations in year ahead

As a result of conditions brought about by the war, the regular three-day annual convention of the Roadmasters' and Maintenance of Way Association, which was scheduled to be held in Chicago on September 14-16, was replaced this year by a one-day meeting of its officers and directors, in Chicago on September 15. Presided over by President E. L. Banion, general track foreman on the staff of the assistant general manager of the Eastern lines of the Santa Fe, the meeting was held at the Hotel Sherman, and, at the invitation of the Executive committee, was attended by the chairmen and members of the technical committees and a number of key members and guests, largely from the Chicago area. The total registration was 48.

Makes Most of Short Session

Failure to hold the regular annual meeting, or at least a streamlined war-time meeting of two day's duration, open to all members and maintenance of way men generally, deprived many members and others engaged in track maintenance work of the large advantages in the association's activities that can be gained only through participation in annual meetngs, with the opportunity which these meetings afford for the formal and informal exchange of information. Failure to hold the regular annual meeting also eliminated the opportunity for men in Washington handling matters of vital importance to the railways, to discuss the special war-time problems confronting maintenance men with the key men in this branch of railway service. However, making the most of its one-day executive meeting, which type of meeting the officers and directors felt was necessary to minimize travel on the already heavily burdened passenger trains of the country, and to avoid taking members from their immediate heavy responsibilities in the field, the program was stripped of all preliminaries and formalities, and was confined to detailed consideration of the technical reports prepared by committees during the year and to other pertinent problems facing roadmasters.

In fact, following detailed consideration of the committee reports, which extended well into the afternoon, with only a brief pause for lunch, the meeting developed into a roundtable discussion of a number of the special problems confronting roadmasters, beyond the scope of the reports, indicating the desire of those present to take full advantage of the opportunity afforded by the meeting to gain as much information as possible in the solution of their problems.

The technical reports considered at the meeting, abstracts of which are presented in following columns, dealt with the following subjects: Getting the Most From Crossties; The Housing of Track Laborers; Saving Labor Through the More Intensive Use of Equipment; Extending the Life of Switches, Frogs and Crossings; Educating Track Labor in the Salvage of Material; and Reducing the Use of Revenue Cars in Non-Revenue Service.

There was no election of officers, the present officers automatically remaining in office until the next regular annual meeting. Likewise, there was no exhibit of track materials and equipment by the Track Supply Association, a feature that for many years has formed an important supplement to the regular meetings of the association.

In brief presidential remarks, President Banion reviewed the action of the Executive committee in abandoning the annual meeting this year, pointed to the work of the association over the years and urged members to continue their support of the association in the difficult days ahead.

During the closing hour of the meeting, the Executive committee selected the following subjects for study during the ensuing year: Operation and Maintenance of Work Equipment; Effects of Traffic on the Service Life of Ties and Methods of Protection; Prevention of Accidents to Trackmen; Mechanization of Section gangs; What Trackmen Can Do to Speed up Train Operation; and Recruiting Men in a Period of Extreme Labor Shortage.

Use of Equipment to Conserve Labor

With manpower shortages in the maintenance of way department serious in most parts of the country and critical in many areas, the report of the committee dealing with labor-saving by intensive use of equipment was essentially a two-fold plea to make the most of the power machines already on hand and to add more machines as fast as they can be purchased. R. H. Gilkey, division engineer, Central of Georgia, was chairman of the committee.

After outlining the situation facing maintenance forces with respect to inadequate manpower, shortages of materials and insufficient work equipment, in the face of the heaviest traffic load in history, the committee stressed, in order, the importance of keeping machines at work through programming in advance, proper supervision, care in operation, and studious attention to maintenance.

In regard to these matters, it emphasized the importance of planning work in advance; of equipping machines for off-season work; of extending the length of the work day of machines to 10 or 12 hours, or longer, where possible; and of proper attention to the operation and maintenance of machines by supervisers, operators and field mechanics.

At one point in its report, the committee discussed at some length the equipment that is available and that

can be used to advantage on a railroad division, a subdivision and individual track sections, and then closed its report with a plea for additional equipment, where necessary, to offset shortages in labor and to accomplish the work that must be done if the track structure is to keep pace with traffic demands. In this latter regard, it said, in part, as follows:

"The railroads need more good power machines of correct design to get the greatest amount of work done in the least amount of time. It is highly important to study each job, because, if a power machine can be devised that will hasten the work and release labor for other work, the result will be a substantial saving in labor.

"To offset the manpower that has been lost from regular section gangs, these gangs will have to be provided with small portable compressors to operate spike drivers, tampers, wrenches and similar tools. If this is done, a more uniform plan of work will result. Most present work equipment can be adapted to the smaller gangs, and it is our problem to study each feature of track maintenance to see if some power tool or machine can be used instead of hand methods. Off-track equipment is needed more today than ever before, not only because much of our on-track equipment is needed in revenue service, but also because of the loss of time incurred in getting to and from work and in clearing for trains.

"During the next year there will be new ideas and new designs in machines and tools. Many labor-saving devices will be created, and where these machines and power tools are placed in section gangs, such gangs will effect economies that justify their assignment. In conclusion, we repeat that the intensive use of such equipment will yield large savings in labor."

Reducing Non-Revenue Use of Cars

After pointing out the tight car situation in the country in the face of unprecedented traffic demands, and the magnitude of the number of cars that, unavoidably, must be used in the handling of company material, the committee reporting on conservation of non-revenue use of cars, of which J. M. Miller, assistant superintendent, Western Maryland, was chairman, directed attention to the number of instances of unduly long car detentions for which the maintenance forces were responsible, and then discussed at length ways and means of preventing such detentions.

Concerning what can and must be done in the interest of reducing the use of cars in non-revenue service, especially gondolas and flat cars, the committee urged the careful planning of all work operations to avoid car delays under load, and the avoidance of employing cars for storage purposes, and then continued, in part, as follows:

"Whenever a different class of equipment can be substituted for open-top equipment, this should be done. In some cases, this may present handicaps, but it will doubtless be found that some substitutions can be made without delay or inconvenience; indeed, some inconvenience may be warranted.

"If a definite program is first made as to requirements, and is then followed up by close co-operation between the parties purchasing, loading and distributing the material when received, marked decreases in car detentions will be noted. In a great many cases, company material is not moved promptly by the operating department, but is used as fillouts in tonnage trains. If such company material was moved and given the same status as other freight, a considerable number of car days would be saved. It is also a fact in many cases that company material is ordered and sent to a central location or yard, where further delays are experienced. If these cars were billed to the points at which they are to be unloaded, these delays would be avoided."

Summarizing the recommendations embodied in this report, the committee offered the following conclusions:

"Make a complete plan of what must be done, of the materials needed, and when needed. Handle this program with your purchasing department sufficiently in advance to enable it to determine if the materials required can be had at the time needed. On the basis of the information received in this regard, plan your work accordingly.

"Keep in close contact with your purchasing department and ask that it keep in close contact with you. Have a complete and thorough understanding between the shipper, who should supply you with shipping notices, and the operating department, while the material is in transit.

"Point out the advantages to the operating department of the prompt movement of the materials for which you have need and follow cars of materials under load from the point of origin, through to destination, particularly on your line.

"Have your work so advanced that you will be ready for the materials when they are received.

"Unload them promptly and without delay.

"Never use cars for storage purposes unless there is no alternative."

Teaching Materials' Saving to Trackmen

A survey made by the committee reporting on the education of track labor in the salvage of material, of which C. F. Edwards, assistant division engineer, Chesapeake & Ohio, was chairman, showed unmistakably the importance which the railways, and track forces in particular, attach to the salvage and reclamation of materials. However, recognizing that some maintenance men still fall short of giving this matter the attention it warrants, and that maximum results can be accomplished only by constant vigilance, the committee reviewed the subject in detail and offered a number of recommendations.

Greatest success in the salvage of material, it said, calls for the education of all track laborers in the importance of this activity, since these are the men who use and recover materials. The consensus of the committee was that the most effective manner of educating the track forces is through frequent personal contact by roadmasters and supervisors. In addition, it said that division engineers and division roadmasters should hold occasional meetings with their track forces, if possible, not only for the education of these forces in this matter, but also to secure their reactions and suggestions. These

personal contacts and meetings, it recommended, should be supplemented at frequent intervals by bulletins and posters to keep the subject of salvage uppermost in the minds of the men.

In addition to these means of education, the committee said that frequent and thorough inspection must be made to see that all scrap and usable materials recovered are taken to the tool houses daily and not left lying around the line to be picked up at some later time; that tool houses and supply yards must be checked, and all surplus and obsolete materials be disposed of in the proper manner; that foremen should be instructed in the importance of the careful ordering of materials; and that materials, especially of the smaller type, should not be distributed too far in advance of the time of use.

Pointing out that the average trackman does not fully realize the cost of the material he is using, and for that reason does not appreciate how much money and effort are wasted by his failure to pick up stray or scrap materials, it also recommended that foremen be kept apprised of the value of the materials they use, and that foremen, in turn, should advise their men.

In summary, the committee said that it believed that the education of track labor in the salvage of materials can best be accomplished by the following measures:

(1) Frequent personal contacts with the laborers.

(a) Instruction by supervisors of foremen and men with regard to the best methods and practices for salvage.

(b) Meetings at frequent intervals to instruct and impress upon these men the full importance of this matter.

(2) Bulletins and posters to the foremen and men, stressing the salvage of all material.

(3) Personal inspections by supervisors to see that:

(a) Material stocks are kept to a minimum.

(b) Proper disposition is made of all obsolete or unused materials.

(4) Supervisory officers seeing that all foremen are instructed as to—

(a) The amount and kind of emergency materials to be kept on hand.

(b) The recovery and transfer of all scrap and surplus material to tool houses daily.

(c) Full appreciation on their part and on the part of their men of the acute and widespread shortage of material.

(5) All men in supervisory capacities doing all that they can to cause everyone on the railroads to become acutely "scrap conscious", and to enlist the concerted action and co-operation of every employee in this matter.

Longer Life for Frogs and Crossings

Placing the responsibility directly on maintenance of way men for securing the maximum service life from switches, frogs and crossings, the committee investigating this subject, of which A. G. Reese, district engineer, Chicago, Burlington and Quincy, was chairman, presented a detailed treatise on the selection of the proper units to meet specific requirements, and on the measures necessary to insure the proper installation and maintenance of such units.

Speed and density of traffic, it said, govern the type of crossing to be installed, manganese construction being preferred for locations where speeds are high and the tonnage heavy, and open-hearth construction for locations where speeds are slower and the tonnage is lighter. In determining the type of construction to be installed, it suggested that consideration should be given to the permanence of the line involved and open-hearth construction specified if there is any imminent possibility of realinement or abandonment. The possibilities for the re-use of a crossing in another location in case it is rendered useless by realinement or line abandonment should, it said, always be canvassed, as this can and often should be a determining factor in arriving at a decision as to the type of crossing to be specified. Likewise, the present weight of rail and prospective future relays should govern the weight of rail for the crossing, and the installation should anticipate this future relay by construction to the weight planned. In open-hearth construction, it continued, the section of rail involved should always receive special consideration and the crossing should be built of a section standard on the line in question.

Concerning frogs and switches, the committee said, in part, as follows:

"The same factors involved in crossing construction govern the type of turnout frogs to be specified, but with the added consideration of the angle of the turnout and the location of the switch. In main-line turnouts where the speed to be maintained through the switch is fairly high, such as at the ends of double track or through high-speed crossovers, rigid frogs of manganese or manganese-insert construction can certainly be justified. Through siding turnouts where speeds are restricted and the traffic on the main-line side of the turnout is many times heavier than on the sidings side, spring-rail frogs of open-hearth construction can always be used.

"On heavy switching leads, rigid frogs of manganese and manganese-insert construction have been found to give longer service than open-hearth frogs. In yard switches, other than those in lead or ladder tracks, the use of manganese construction cannot always be justified economically, since the first cost of an open-hearth rigid frog is much less, and satisfactory service life can be realized by welding whenever necessary. Switch point protectors have proved their efficiency in preventing excessive wear on switch points, but their extended use should be confined to yard tracks where switching movements are frequent and slow."

The remainder of the committee's report dealt with the proper installation, inspection and maintenance of frogs, switches and crossings, with special emphasis on the importance of proper rail anchorage and the value of welding and grinding.

Getting the Most From Crossties

After citing figures to indicate the magnitude of the normal crosstie requirements of the railways, and then directing attention to factors which are today taking an accelerated toll of tie life, and which are limiting tie production and otherwise restricting the renewals that can be made, the report of the committee on crossties, of which committee C. Halverson, roadmaster, Great Northern, was chairman, dealt in detail with all of the factors affecting the life of ties. "Getting the most from crossties is a problem that confronts all maintenance officers today," it said. "Our task is to get the maximum service possible from the crossties we have, in order that we can maintain the vast and important transportation systems of our country."

Concerning the measures that should be adopted and followed closely to insure the maximum life from ties, the committee said, in part:

"All ties, whether for main line or side track use, should be pre-bored and treated with a preservative. The application of anti-checking irons remains the best method for reducing splitting losses in ties during the period of air seasoning.

"All ties should be loaded in such a way as to prevent shifting en route, and should be unloaded with the minimum of fall to the right of way, clear of trains. If they are to be inserted in the track soon after they are unloaded, they should be spotted opposite the ties to be renewed. On the other hand, if they are to

(*Continued on page 487*)

Box-Baggage Cars for the C. N. R.

Freight-car structures with end doors are completely equipped for passenger-train service—Used for storage mail and troop-train baggage

Photographs Courtesy Canadian National

DURING the summer the Canadian National received 50 box-baggage cars from the Montreal plant of the Canadian Car and Foundry Company Limited. They are similar to an order of 50 cars built for the Canadian National by the same builder in 1939. The earlier cars, however, were built with corrugated steel ends, and had no end doors.

The new cars are 40 ft. 6 in. long, 9 ft. 2 in. wide, and 10 ft. high, and have a capacity of 40 tons and 3,712 cu. ft. The light weight is 48,200 lb. Equipped for passenger-train service, they are used for storage mail and to carry baggage and supplies in troop trains.

Essentially, each car is a standard steel-sheathed, wood-lined box-car structure of riveted construction. The ends have double U-section corner posts and Z-bar end posts. The door posts are 5-in., 11.6-lb. sections, and the intermediate posts 3-in., 6.7-lb. These posts extend from end sill to end plate, to both of which they are securely fastened. The hinged end doors are wood, steel plated. The cars have Hutchins all-steel roofs with Youngstown side doors and Camel roller lift side-door fittings. A small platform extends over the coupler outside each end door.

Interior illumination is provided by five 50-watt lamps, the sockets for which are mounted in a conduit in the center line of the ceiling. Power for the lights is secured by jumper connection to the adjoining car. The Pyle-National train receptacles are mounted on the ends of the car immediately above the end doors. Brackets are placed on the lining of the car immediately inside the end doors for the jumpers, when not in use.

Special equipment which permits the operation of the cars in passenger trains includes signal and steam-heat train lines, Miner ASXB2 passenger-car draft gear, and the Standard coupler-centering device. The steam-heat train line is fitted with Barco flexible connections.

The Trucks

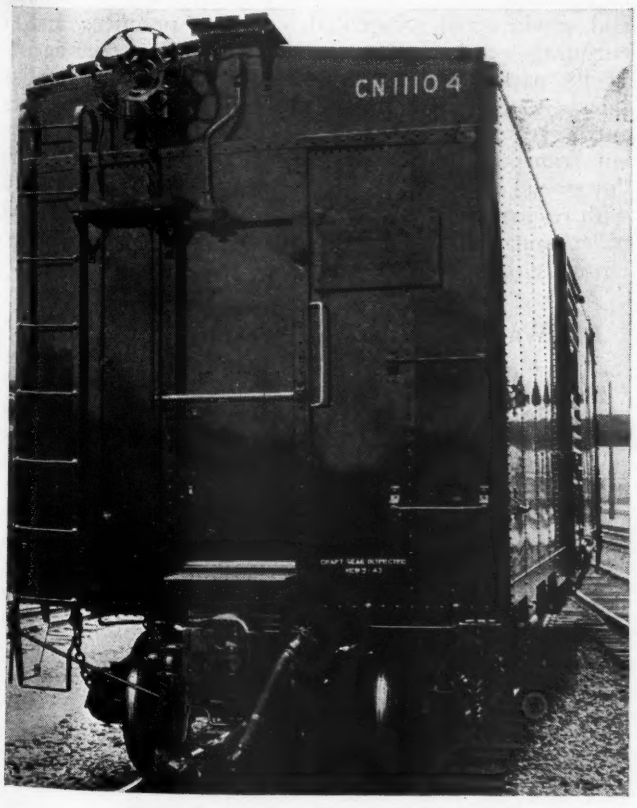
The trucks are of American Steel Foundries design with structural-steel spring planks and the Barber stabilizer feature. The special axles have 5-in. by 9-in. journals, and the wheels are steel tired, 34¼ in. in diameter. The trucks are equipped with safety chains. Universal hand brakes are applied.

The cars are said to have the first installation of the AB-1-B type air-brake equipment built by Westinghouse. This brake includes an addition to the AB freight brake adapting it to operation in either freight- or passenger-train service. The additional functions required to adapt the freight brake to operation in passenger trains are performed by a selector valve installed between the pipe bracket and the emergency portion of the AB valve. Actuated automatically by signal train-line pressure when the car is in passenger-train service, the selector valve functions to blow-down brake-cylinder pressure, developed in the selector-valve portion of the combined equipment, through a poppet-type safety valve to elimi-

The Interior Is Essentially That of a Box Car

nate the possibility of a cylinder pressure in excess of 60 lb. being developed by the high brake-pipe pressure carried on passenger trains. The cars are thus protected against slid wheels. The selector valve also functions to eliminate the three-stage build-up of brake-cylinder pressure of the AB freight equipment, decreasing the time for the development of full brake-cylinder pressure to a fraction of that required in freight service. Without pressure in the signal train-line the AB valve performs its normal freight brake functions.

The exterior finish of the cars is the Canadian National standard passenger car green on the sides; the ends, roof, underframe, and trucks are in black. Lettering is in yellow gold.



The Cars Have End Doors—Jumper Connections Provide Power for Interior Lighting

Roadmasters Carry on Work Without Convention

(*Continued from page 485*)

be stored for the next season's renewals, they should be piled as compactly as possible and covered with earth."

The committee laid particular stress upon the importance of inspection for renewals in securing the maximum service life from ties, and upon the use of new ties where they will give the best possible service. Other of its recommendations were that ties should be of uniform size and strength and that they should be spaced uniformly to transmit the load to the roadbed more uniformly; also that joints should be given preference, recognizing that poor joint ties will lead to damage to the entire joint assemblies.

At another point in its report, the committee stressed the value of tie plates of adequate size in avoiding mechanical wear and in reducing the amount of gaging, and pointed out that "a sufficient number of rail anchors, well distributed throughout the track panels, are essential to well-maintained track."

Closing its report, the committee discussed proper adzing in connection with rail renewals; proper construction through road crossings; means of preventing damage to ties, both in their handling and after their insertion in the track; and the importance of adequate drainage.

Housing of Track Laborers

In order to obtain first-hand information as to present-day practice in the housing of track laborers, the committee handling this subject, of which L. E. Smith, roadmaster, Missouri Pacific, was chairman, sent a questionnaire to maintenance officers scattered widely over the country. Based upon the replies received, it stated at the outset of its report that while under normal conditions it is important to provide attractive and comfortable housing for track labor, under present conditions it is not only advisable, but absolutely essential to do so if the right kind of men are to be secured and retained in competition with other industries which are in position to offer higher pay and other attractions.

Pointing out that the headquarters of railroad forces are, of necessity, often remote from towns, and that recreation facilities, such as movies or other forms of entertainment, cannot be made available, it said that these handicaps must be overcome so far as possible. The best labor, it said, stays where living is comfortable and attractive, but will move on quickly where quarters are unattractive and are not kept clean and free from vermin.

After discussing the various types of housing being afforded track labor, the committee said, in part, as follows:

"Whatever the type of structure, it must be so designed that it can be kept clean, well-ventilated in hot weather and evenly heated in cold weather. All windows and doors must be kept well screened and space must be provided not merely for bunks, but also for evening recreation. Toilet facilities must be sanitary and showers and other bathing facilities must be provided. Kitchen and dining facilities must likewise be attractive and clean. Illumination should preferably be by electric light, with the power generated by a portable power unit when the gang is located remote from available power lines. Radios should be provided, or the men encouraged to provide their own sets. Adequate refrigeration is essential, and where electric refrigeration is not feasible because of lack of power, an adequate supply of ice must be provided in hot weather."

Annual Report of Study Board

Review of year ended September 18, 1943, announces completion of interterritorial rate investigation and gives status of uncompleted work on statutory assignments

WASHINGTON, D. C.

REPORTING for the year ended September 18, 1943, the Board of Investigation & Research this week told President Roosevelt and Congress how it has pushed its extra-curricular activities to a conclusion while lengthening schedules on its prescribed studies. Members of the board, which was created by the Transportation Act of 1940, are Chairman Nelson Lee Smith of New Hampshire, whom the President recently nominated for a Federal Power Commission membership; Robert E. Webb of Kentucky; and C. E. Childe of Nebraska.

The report was submitted on September 20, and the accompanying press release promised "within the next few days" a 500-page final report on the interterritorial freight rate investigation which the board went outside its specific statutory assignments to undertake in fulfillment of the December, 1941, commitment made to Senator McKellar, Democrat of Tennessee, who got what he wanted by threatening to oppose a pending appropriation for the board. The final rate report is designed to support in detail last March 30's summary report which recommended Congressional action directing the Interstate Commerce Commission to establish a uniform classification and uniform scale of class rates. Chairman Smith is a dissenter to the rate report.

Lengthened Schedules on Prescribed Studies

The board's specific statutory assignments call for studies of public aids to carriers, the impact of taxes on carriers, and the relative economy and fitness of the different modes of transport. The previous annual report for the year ended September 18, 1942, anticipated that the report on public aids would be completed "early in 1943," and the taxation report by the close of the fiscal year ended June 30, 1943. No date was suggested for completion of the study of relative economy and fitness which was appraised as something requiring "a longer period."

The present report's schedules with respect to the public aids and the taxation studies are not so specific—the former is now expected to be completed "in the coming months," and the latter "within the next few months." Summing up on the timetable, the report says that "during the coming year the board expects to complete reports covering its major studies and investigations and a final report embodying its general findings and recommendations."

The board's life is limited to September 18, 1944. The Transportation Act gave it a two-year life from September 18, 1940, but authorized the President to extend it another two years by executive order, which he did in June, 1942. However, the board will have functioned for only about three years, delays in the appointment and confirmation of members having been such that it did not get organized until late August, 1941.

While the present report makes no recommendation in that connection, it does embody indirect suggestions to the effect that if an agency like the board were set up on a permanent basis it would be in a position to give Congress a lot of good advice on transportation matters. One such suggestion comes in a discussion of what the board conceives to be a need for "continuing research which will serve to inform the government and the public as to needs and developments" in the transportation field. Then comes the reminder that the board "is engaged in studying and developing" information of the type which will be needed. As noted in the *Railway Age* of May 22, page 1070, Mr. Childe has made a similar suggestion in a speech before the Southern Policy Association.

The report got under way with a general discussion of the board's work in relation to the country's transportation problems. Then in Part II came the more detailed account of the research program, which gave the current status of the many component inquiries into which the board has broken down its investigations. The general discussion presents statistics to show the "magnitude of the transportation plant," which poses a "central problem" of providing "adequate transportation services for all needs at reasonable prices in relation to the cost and quality of the service."

Attainment of this "broad objective," it is suggested, "requires progressive public and private action, designed to eliminate waste, unnecessary duplication of facilities and services and antiquated operating practices, and to encourage economical performance of each carrier agency in its particular market place." Elaborating on this theme, the report, among other things, saw possibilities for a greater measure of cooperation between the different transport agencies. It noted that there has been "progress" along such lines within the railroad industry with respect to through routes, trackage rights, joint use of terminals, joint switching operations, and "other mutually helpful arrangements."

Pre-War "Surplus" a Wartime "Life-Saver"

Meanwhile the carriers and their employees are given a pat on the back for the "tremendous" wartime job they are doing. In that connection it is also pointed out that the country is nearer now than ever before to "a fully utilized transportation system." Pre-war fears "that the transportation plant had been built beyond any requirements of the immediate future" are recalled to make the point that "this so-called surplus of transportation proved to be a life-saver; without it the country would have been in a desperate position both before and after Pearl Harbor." All of which led the board to conclude that the war had "demonstrated again that national existence demands the maintenance of a transportation plant with a reserve capacity that quickly can be adapted and utilized in time of need at a level equal to that of the present war's requirements."

Planning for the post-war era, as the board views it, "presents a great challenge to the history of American

transportation." And here follows the reference to the need for "basic information" which the board thinks should come out of "continuous research" of the kind it had been doing right along.

First place in the review of the research program is given to the completed interterritorial rate study. There the summary report's conclusions and recommendations are repeated in full, and 15 uniform rate bills pending in Congress are listed. Some of these bills, as the report notes, "were drafted to carry out the board's recommendations."

Meanwhile the board had described this rate study as one "concerned with the broad questions of public policy which are involved in the controversy"; it "did not undertake to inquire into the lawfulness or unlawfulness of the present rates under existing statutes—a matter which is within the jurisdiction of the Interstate Commerce Commission." Attention is called to the fact that the board's recommendations dealt with class rates. So far as commodity rates are concerned, the rate report "recognizes" that they "should also be as nearly uniform as is consistent with transportation costs and the revenue needs of the carriers"; but the commodity-rate structure "can best be dealt with individually as a result of comprehensive investigations by the Interstate Commerce Commission on a commodity basis."

Taxation and Public Aids Studies

In the taxation study the board is undertaking to determine "if there is merit in the contention of certain carrier groups that they are unduly handicapped in their competition with other modes of transportation because of relative taxation." It is recognized that "uneconomic distribution of traffic among the carriers can as readily result from improper tax policies as from improper policies with respect to public aids, rate regulation, labor relations, and other subjects of inquiry by the board." But "what constitutes relative overtaxation is, of course, a difficult question and one to which there is no wholly scientific answer."

Nevertheless, the board "has assembled data and canvassed informed opinion," and analyses "are nearing completion," some work remaining to be done on the highway carrier tax studies.

The study of public aids to carriers "is now in final stages of preparation." Here the board has distinguished between aids extended "in the distant past" which are now "of historical interest only," and "currently effective aids." Also, it asserts that "public expenditures are not necessarily synonymous with public aids, for the reason that credit must be given for such compensation, direct or indirect, as the carriers make for use of public facilities, such as highways and airports, which are provided for their use." Moreover, in the opinion of the board, "it is desirable that the needs of defense and of commerce shall each be carefully considered and given appropriate weight in determining, in particular instances, the proper role of government in the promotion of various types of transportation facilities."

The status of the investigation of relative economy and fitness is outlined in considerable detail. The component inquiries in that connection are divided into a technical and an economic group; while the results of the taxation, public aids, and interterritorial rate studies will also be utilized.

First of the technical studies is the inquiry into cost techniques and comparative costs to which the board has assigned "its staff of technical specialists to investigate cost methods and procedures used by rail, motor and water carriers with the aim of developing formulas which will show average unit costs of rendering transportation service by the carrier agencies involved." Not only are efforts being made to develop "going costs," but methods are being sought "for estimating comparative unit costs under attainable transportation conditions and capacity loads." Upon completion of the cost studies "a comparison of costs will be made to determine the proper economical sphere of each mode of transport."

The board decided to make these comparisons by selecting a "representative area" for tests, and the Mississippi and Ohio river valleys were chosen since, as the report puts it, "they are typical of the country." Selected movements will cover "economical" rail, water and truck hauls as well as joint operations; and "it is expected that the comparisons will indicate where the rail, barge and truck hauls, respectively, possess cost advantages and to what extent combination hauls employing more than one type of transportation may be economically desirable."

Express and Milk Handled at Loss

Related to the cost-finding investigation is the study of carrier accounting and statistics which "may result in making more readily available the basic information requisite to any analysis of relative economy and efficiency of the carriers; and, at the same time, it may indicate possible reductions of the burden of required accounting procedures and statistical reports." Preliminary studies of "duplicate passenger-train service" and one study involving "certain elements of passenger-train traffic" have been completed. Data gathered for a collateral study of the cost and efficiency of transporting mail and express indicate "that the railroads enjoy a profit from the transportation of the mails, but express and milk, except carloads in tank cars, are handled usually at a loss."

The specific "rail-carrier technical studies" have been designed to determine not only "normal railroad costs," but also "possible railroad economies attainable through technological improvements." Thus such inquiries as that into railroad terminal operations with its examination of the possibilities of "greater consolidation and unification"; and the surveys of roadway design and of the design and capacity of equipment. The latter, the report promises, "will point the way to railroad modernization in the post-war years"; while the machine tool inquiry is expected to show potential man-hour savings attendant upon the introduction of modern tools and how "more general adoption of shop-work routing and planning will lead to greater efficiency."

As it looks over railroad line-haul operations, the board gets the impression that "considerable economies can be effected and greater safety obtained through the increased use of centralized traffic control, coded track circuits, rail-highway grade-crossing protection, automatic train control, and cab signals." It is also studying coordinated operation of teletypewriters and card-punch equipment "for remote reproduction of statistics and information."

Calls Present Set-Up "Freight Car Pooling"

The report calls the wartime equipment set-up "freight-car pooling under sponsorship of the Association of American Railroads," adding that like arrangements have been extended to passenger cars and to some locomotives during emergencies. And the board thinks that "the practicability of continuing these arrangements after the war should be carefully investigated." Also it

plans to study railroad abandonments, analyzing the economic reasons for them.

Motor carrier technical studies are expected to forecast technological changes and improvements which may be made in the future; and to consider the classification of motor carriers of property. In the latter connection the board will undertake to determine whether I. C. C. rulings have served "in promoting the inherent advantages of motor transportation." Special water-carrier studies will consider technical and economical developments in water transportation; commodity density and packaging as related to cost characteristics; and floating equipment on inland waterways.

Listed first among the "economic studies" is the carload traffic study in connection with which the board gave each Class I road the big job of furnishing original waybills or copies with information covering all revenue carload shipments terminated by it which originated on 12 specified dates in 1939. Information covering the movement of approximately 925,000 cars was thus obtained. Next come references to the studies of regional traffic trends and "the economics of traffic flows." The former will deal with three main topics—a description of the country's transportation facilities, the "competitive inter-regional traffic channels," and "rate and service factors that appear of importance to shippers in their choice of carrier."

The "economics of traffic flows" study embodies an analysis of movements of six important commodities—coal and coke, iron and steel raw materials and finished products, cement and its raw materials, crude petroleum and petroleum products, hogs and hog products, and potatoes.

Here the purposes has been to determine "the relative influence of transportation and other factors on the location of industry." Moreover, the analysis is expected to be "useful in the study of the nature and source of wasteful transportation that exists in several industries."

Charting Demands for Passenger Service

The study of passenger traffic, covering rail, highway, waterway and air carriers, "is expected to show the trend, revealed in the two decades before 1939, in the demand for the passenger services of public carriers; the extent of the diversion of traffic between the public carriers and the rate and service factors that account for the diversion; and finally, the influence which diversion in one period has had on the facilities and services offered in the years immediately following."

As to the relationships between carriers and the government, the board is embarked on studies of regulatory policy, and rate policy and standards of control. The report's discussion of the latter mentions in passing how the petroleum rate cases have furnished "some examples of the problems encountered when an attempt is made to control the processes of competitive rate adjustments in accordance with comparative costs and certain standards of adequate revenue." This rate policy study will appraise the possibilities "of more positive rate controls in the future and the alternative advantages of facilitating competitive rate adjustments to a greater extent."

"Closely related" to it is the study of "supply policy and standards of control." Here the board expects to evaluate government controls limiting the number of motor and water carriers which may enter their respective fields. Meanwhile its consideration of "integration policy and standards of control" will look over provisions of the Interstate Commerce and Civil Aeronautics acts which restrict railroad participation in ownership of highway and air carriers.

Record on "Transport Company" Proposals

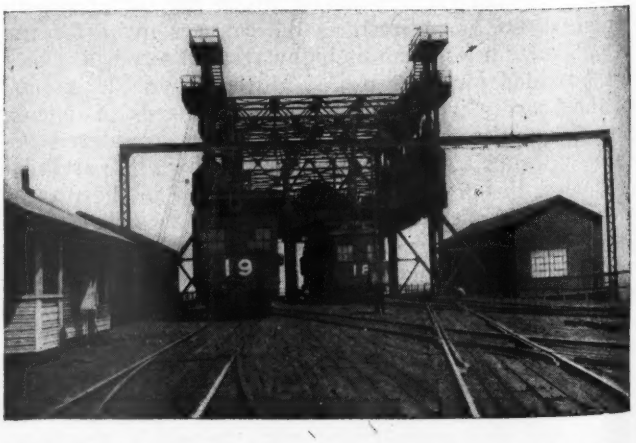
"The current revival of interest in the problem of integration, especially of the transportation company type, which contemplates a limited number of transport systems unifying air, motor, pipe line, rail, and water facilities under private auspices, and the failure of past consolidation proposals make it desirable for the board to review the record," the report says. Such review will have in mind "the most pressing question of public policy today," which is "wheher present prohibitions or restrictions in regulatory statutes should be relaxed or tightened."

In the matter of shipper-carrier relations the board is considtring "what improvements can be made in the rate-making organizations and procedures of the various carrier agencies." Its studies of remuneration by occupations in the transportation industry are predicated on the fact that "freight rates are influenced by labor costs"; and thus any investigation of economy and fitness "should take into account the extent to which a carrier is benefited by wage rates which are below those paid elsewhere for essentially the same caliber and level of work."

Other labor studies are going into such subjects as "railroad consolidation and employee welfare," and federal machinery for the settlement of transportation labor disputes.

Finally there are the studies of "trade barriers in motor transportation"; of the economics of air and pipeline transportation, and of machinery for effectuating government transportation policies. While a large part of the latter is cocerned with the Interstate Commerce Commission, it embodies also an examination of transportation work in all federal departments and agencies. The board has found that "more than eighty" agencies or departmental units of the federal government "are active to a material extent in matters relating to transportation." Here it expects to make specific recommendations "with particular reference to the development and execution of policy, fair and efficient procedure, and the organization and relationships of governmental instrumentalities for planning, research, and the development and regulation of an adequate national transportation system."

* * *



Electrically-Operated Transfer Cars Carry Coal From Road Car Dumpers to Ship Loaders on the Virginian, at Sewalls Point, Va.

Southern Roads Oppose Procrustean Rate-Making

THE Southern railroads—123 of them—have issued an 18-page pamphlet entitled "The Menace of Legislative Price-Fixing," in which they make explicit the national evils which would follow upon adoption of any of the many political schemes now being activated in Congress and elsewhere, requiring uniform classification of freight, and uniform class rates, in the several rate territories, regardless of the vast differences which subsist among them in the composition of their traffic.

The booklet invites special attention to "the most revolutionary of these bills" (S. 1030 and H.R. 2547) —introduced in the Senate by Senator Stewart of Tennessee and in the lower house by Congressman Patman of Texas—which would divide the country into area units, each 30 min. square, and would require the Interstate Commerce Commission to establish uniform rates, both c.l. and l.c.l., "for each commodity or class of commodities," depending upon the number of these topographical zones which a shipment would traverse in arriving at its destination. No deviation whatever would be permitted in this rigidly frozen rate structure, as proposed by these two political rate-makers.

Commenting upon this proposal, the pamphlet asserts that its adoption would destroy "every vestige of the system of freight rates under which this vast country has developed and prospered." Moreover, "the railroads and industry would be forced to reorganize their every activity to conform exactly to a mathematical formula which bears no relation whatever to the transportation service actually performed by the railroads or to the problems arising from the production, transportation, and distribution of the nation's industrial and agricultural output."

Other similar, but somewhat less thoroughly arbitrary, brain-children of the political rate-makers are next examined in the booklet. Among these is the bill of Congressman Boren (Oklahoma), H.R. 2436, which would simply require "a uniform classification of freight and a uniform scale of freight rates" throughout the country. Of this project, the Southern railroads say, "under its terms, freight rates—class or commodity—on every article of commerce . . . would depend solely on the distance the freight is transported. Commercial, competitive, economic and transportation conditions in the various sections of the country would be completely disregarded."

Other bills (S. 947 by Senators Overton of Louisiana and McClellan of Arkansas, H.R. 2391 by Congressman Brooks of Louisiana, and H.R. 2435 by Congressman Fulmer of South Carolina) are summarized which would prescribe nationwide rate uniformity only in classification and in the class rates—i.e., territorial differences in commodity rates would be permitted to continue. Some departure from rigid equality of class rates would be permitted under these bills, where necessary to insure adequate transportation service in particular areas or to allow for differences in costs of service or the revenue needs of particular carriers.

Other bills (H.R. 2378 by Congressman Priest of Tennessee, S. 1124 by Senator Hill of Alabama, H.R. 2645 by Congressman Miller of Nebraska, H.R. 3138 by Congressman Norrell of Arkansas, and H.R. 2519 by Congressman Bryson of South Carolina) are similar to the three foregoing ones, except for variances in the conditions under which they would permit exceptions from uniformity. The Southern carriers call attention to the fact that the group of bills mentioned in this and the preceding paragraphs seek to exempt commodity rates from the general regimentation, a purpose which is "illusory", if rate uniformity is honestly desired, because "commodity rates are for the express purpose of voiding the application of class rates." In the end, these less-complete uniformity measures would have the same effect as the Boren bill, in the opinion of the Southern lines, e.g.:

"Like Procrustes of old, the authors of these bills would tie their unwary guests—the nation's industry and agriculture—on the iron bed of freight rate uniformity and stretch them or cut off their legs to fit them to its length."

The pamphlet raises the question of what the authors of these compulsory rate-uniformity bills propose to do about the rates of agencies of transportation other than the railroads. "Surely," say the carriers, "there can be no merit in a system of uniform mileage rates which would apply to the railroads alone, and ignore other transportation agencies . . ."

The proposed inflexible rates imposed upon the railroads would "affect some shippers and localities adversely and, perhaps, give advantage to others. Those affected adversely could be expected to turn to other forms of transportation, public or private, to relocation of industry and to radical changes in market areas and methods of distribution. . . ." This would doubtless work to the severe injury of the affected railroads, and especially to the shippers, receivers and communities whose time-tried methods of doing business would thus be arbitrarily disrupted.

The document goes on to explain how freight rates are now made by users and carriers co-operating with each other—all under the experienced scrutiny of the Interstate Commerce Commission; and that rates now are flexible—they are altered to conform to competitive necessity, to economic conditions, to promote the development of the resources of particular areas or the needs of particular industries; and that under this system the country's commerce has prospered.

The proposals embodied in the numerous "uniformity" bills would introduce an entirely new theory of rate-making—i.e., make the legislators, instead of experienced regulators, the final arbiters of rates. "Under this philosophy, the Congress would in effect, become the traffic manager not only of the railroads but of the nation's shippers, as well, and freight rates would be made at the polls. . . . The rates of a given industry or section of the country would depend entirely upon the votes which it could muster . . ."

The pamphlet expresses fear lest the South lose its low commodity rates, if class rates are made uniform —since other rate territories will have the same right to demand equalization of commodity rates that Southern politicians have to expect equalization of class rates.

In the chaos likely to ensue from the adoption of such political rate-making, the Southern roads see "another step toward the destruction of private enterprise in this country." They do not ask that shippers "blindly accept the railroad viewpoint in considering this legislation" but that they study the measures in the light of their own welfare.

In a separately-printed appendix (34 pages), the Southern lines present the full text of all the bills which they discuss in their pamphlet. Copies of both pamphlet and appendix are obtainable on request from any of the 123 signatory carriers.

O.D.T.-Commission Co-operation

Railroad and utility commissioners hold open forum on this topic—Air transport co-ordination discussed

THE co-operation extended the Office of Defense Transportation by the Interstate Commerce Commission and state railroad and utility commissions for the purpose of developing maximum utilization of transportation facilities during the war has been generally satisfactory, according to Joseph B. Eastman, director of the Office of Defense Transportation, in an open forum discussion at the 1943 war conference of the National Association of Railroad and Utilities Commissioners at Chicago on September 14-16. As stated in an article in the *Railway Age* of September 18, reporting the first two days of this meeting, the open forum discussion on September 16 was directed to the topic: What are the Responsibilities of the Interstate Commerce Commission and the State Commissions, Separately or in Co-operation, with Regard to Orders of the Office of Defense Transportation? Discussion leaders were Mr. Eastman; J. Haden Alldredge, chairman of the I. C. C., and Henry S. Sherman, chairman of the Public Utilities Commission of Colorado.

Officers elected by the association for the ensuing year are: President, Wade O. Martin, chairman of the Louisiana Public Service Commission; first vice-president, George C. McConnaughey, chairman of the Public Utilities Commission of Ohio; second vice-president, J. D. Biggs, chairman of the Illinois Commerce Commission; general solicitor, John E. Benton, re-elected; and secretary, Ben Smart, re-elected. The 1944 meeting of the association will be held at Omaha, Neb., at a date to be decided later.

Mr. Eastman Opens Forum

Mr. Eastman, in discussing the open forum topic, said, in part:

"Our relations with the I. C. C. have, in my judgment, been excellent. In various respects the commission has emergency authority which duplicates that of my office. These duplications could have caused confusion and controversies. They have not so resulted, because the two agencies have worked together and not at cross purposes.

"We have had much valuable assistance from the commission in the field of statistics, and also in the fields of accounting and valuation, particularly in connection with the assumption of direct control of the properties of the Toledo, Peoria & Western and the American Railroad of Porto Rico. The field staff of the commission's Bureau of Service has worked in close harmony with our own field men on matters affecting railroad operation, and this has been true also at the top level in Washington. Consultation has preceded action by either agency, and in many instances we have preferred that orders be issued under the statutory authority of the commission rather than by O. D. T. An associate director of our Division of Railway Transport, located at Chicago and with responsibility for the difficult job of helping to keep the Western lines clear, is also the agent of the commission, with delegation of its car service powers.

"In the motor vehicle field, the field staff of the commission's Bureau of Motor Carriers has taken the laboring oar for O. D. T. in the allocation of the very limited supply of new motor trucks. In the granting of temporary operating authority to motor carriers, also, the commission has worked in very close co-operation with O. D. T., a co-operation which has been facilitated by the fact that Commissioner Rogers, to whom the Bureau of Motor Carriers reports, is also my right hand man in charge of motor transport matters for the O. D. T.

"This is not a complete statement, by any means, of the help and co-operation which we have received from the I. C. C. The important fact is that there has been no antagonism but instead mutual confidence, and that the opporunities which exist for misunderstanding and controversy have so far been avoided successfully.

State Co-operation Not So Extensive

"When it comes to the state commissions, our relations have not been as close or the co-operation as extensive as with the I. C. C.; and I know that this has been a source of regret to many of you, as it has been to me. Yet I think that the reasons are fairly plain.

"The greatest apparent opportunity for co-operation has been in the motor vehicle field. The jurisdiction of the O. D. T. in that field, however, is far more extensive than that of any of the state commissions, since it reaches all of the private operators, who vastly exceed the for-hire operators in number and also in vehicle ownership. It is also true that even with respect to the for-hire carriers there are many variances in the powers of the state agencies. Several of our major problems, such as sizes and weights, speed of operation, 'reciprocity,' and the like, fall outside the authority of these commissions, except in a very few states where emergency statutes have been enacted.

"In the circumstances it would have been impossible to have depended to any large extent upon the state commissions for administration of our motor vehicle matters, and partial dependence would have introduced difficulties in organization and in obtaining uniformity of administration. Some of the state commissions, also, would have been unable to take on any substantial burden in this respect, because of reduced budgets and decreased personnel.

"There is also this fact to be considered: The duty of a regulatory commission, broadly speaking, is to see that the public utility companies under its jurisdiction do not exact unjust or unreasonable charges from the public, and that they furnish service which is not only adequate but good. The duty of the Office of Defense Transportation is quite different. As stated in the original executive order, its prime responsibility is to assure maximum utilization of the domestic transportatton facilities of the Nation for the successful prosecution of the war. In view of the prevalent shortages of critical materials and manpower and the huge traffic volume, it has been necessary to sacrifice many of the luxuries and comforts of peacetime service, and even to require reductions in service, where some surplus existed, in order to take care of deficiencies elsewhere.

"Such action is quite foreign to the normal activity of a regulatory body, and in fact is not usually, if ever, provided for in the governing statutes. Rather than undertake such a task, in view of these circumstances, some state commissions have frankly told us that, where orders are necessary, they prefer that they be issued by the O. D. T. This has happened more particularly in the case of local transit passenger service, but it has also happened in the case of reductions in railroad passenger train service.

"However, there has been a good deal of exceedingly helpful co-operation by and with the state commissions, in many different ways. Before we ran into the many difficulties involved in a general program for state commission co-operation in adminis-

tration of our orders, we endeavored to work out a plan for the adoption of our orders as state measures. Mr. Rogers and my general counsel, Mr. Scott, held many meetings with representatives of the Northeastern states. Their efforts were quite successful in New York, whose war council has very broad emergency powers. It has adopted all of our motor vehicle orders, and has been active in their enforcement. To a lesser degree, similar results were attained in some of the New England states, notably Massachusetts and Connecticut. All were anxious to help, and went as far as they felt they lawfully could. Other commissions, such as those of Minnesota and Colorado, voluntarily issued orders patterned upon ours, and proceeded to enforce them. Some states have adopted some of our policy statements as orders and placed them in effect as such. Notable is that concerning the use of school buses. Many others have modified their normal regulatory activity to fit with our objectives, which has been a very important contribution.

"In many instances state commissions have assisted us in working out specific situations. A typical example is a joint action plan submitted to us for approval to accomplish substantial truck conservation. For it to be effective, however, one carrier had to obtain intrastate authority in Georgia in circumstances which precluded a showing of public convenience and necessity. A telephone call to Walter McDonald cleared the situation up. Such examples could be cited from almost every state.

"It has been our general experience, with very few exceptions, in cases of actual or possible conflict of action between a state commission and O. D. T., for the state commission to advise us that it would follow and abide by our decision in the matter, if it were expressed by me or by some one empowered to speak for me authoritatively. Although such matters as 'trade barriers,' 'reciprocity,' weights and sizes, are generally outside of the jurisdiction of state commissions, they have aided in us in every case in which we have asked for aid in obtaining relaxation of state regulations or liberalization in enforcement, by consultation with the state officials having such matters in charge. The same has been true of many local transit matters, such as staggered hours, group riding, and the like.

"Without specifying the states concerned, there have, I am sorry to say, been instances where our local representatives in the field, in an excess of zeal, have taken or attempted to take action in conflict with the action of state authorities without authorization from me, and even without prior consultation with the state authorities. I hold myself more to blame than they for such instances, because the basic fault was a lack of proper instructions.

The excuse, of course, is the necessarily hasty creation of a large organization with wholly new and unprecedented duties. We are doing all that we can to correct such conditions, and I shall be glad to have you bring to my attention any that come within your observation."

Discussion by Alldredge and Sherman

Mr. Alldredge discussed the war-time powers of the I. C. C., citing numerous laws which give priority to certain traffic and give the commission direct or implied powers. Co-operation of state commissions with the I. C. C. has been satisfactory, he said, and in only a few instances has the I. C. C. resorted to the injunction process in its efforts to secure the most efficient utilization of transportation.

Mr. Sherman outlined the many ways in which state commissions can co-operate with the O. D. T. and the I. C. C. during the war and assured the members that complete co-operation would not jeopardize state rights. A survey of the co-operative efforts of state commissions, he said, showed that 31 reported complete co-operation, 5 adopted all orders issued by the O. D. T., 4 reported specific conflicts that were adjusted and 5 reported difficulty in co-operating.

Whatever advantages are inherent in any type of transportation should accrue not only to the communities directly served by it but extend beyond those communities to others not directly served, according to a report of the Committee on Rates of Transportation Agencies, in its consideration of air transport development, which said in part:

"This can only be accomplished through co-ordination and by the establishment of joint services and rates. Millions of dollars are being expended for the construction and improvement of airports, highways, and our rivers and harbors. It is the contention of this committee that the communities located at or near these facilities should not be the sole beneficiaries of the savings in transportation costs, or improvements in service which may result from their use by various transportational agencies, but other communities not so served should also share in the benefits of such improvements. A gool illustration of the results derived from integrating different types of transportation is the air mail service. While the airplane may not serve every town and every hamlet, the benefit of rapid transit given by it is not confined to cities located at the airports they land on, but it is extended to other communities and cities often many miles removed and having no airports or scheduled air service. This is accomplished by co-ordinating the services of the different types of transportation available resulting in through services at joint through rates. What has been illustrated with respect to the mails could and should be equally applicable to the movement of freight moving via any combination of types of transportation resulting in the best service for the money expended.

"Finally, it is the well-considered judgment of your committee that our transportational services are still in the formative process; and that the exploitation of the possibilities of air transportation in the post-war period will bring with it many new problems which will require new regulations and new adjustments to secure the maximum efficiency at the minimum cost. Consequently, it is highly imperative that we approach the problems of the future from a scientific standpoint with open minds, free from prejudice or actuated by local or sectional interests, to the end that the interests of every element of every section of our country will be protected and served in a manner consistent with the common interest and national welfare."

S. P. Assigns Space in Passenger Trains

THE problem of mounting patronage of coach service, with the resultant shortage of equipment, has been solved by the Southern Pacific by means of a train assignment plan for coach passengers which it placed in effect on July 16. By assigning passengers to trains when they buy their tickets, patronage has been cut to the capacity of equipment and traffic is being handled on a more orderly and uniform basis.

The problem of handling coach business manifested itself after the attack on Pearl Harbor when traffic increased by leaps and bounds. By the middle of 1943 it had attained serious proportions. In an attempt to cope with the situation, the coach consists of trains were first increased and then the established consists of trains were raised to the limit of cars that could be handled under practical operation. On the El Paso route, for example, 14-car trains were increased to 18; the Coast Daylight was increased from 16 to 20 cars; and the San Joaquin, from 12 to 20 cars. On certain runs where 2 through coaches were handled, the number was increased to 10.

By the middle of the year the railroad had insufficient coaches with which to handle its passenger business, most of its trains were very heavily loaded, in many instances passengers were standing in the aisles and in

some cases passengers were even sleeping in vestiblues. This heavy traffic created a severe drain on the comfort facilities such as drinking water, water for washing, hand towels and paper cups, while at the same time it was almost impossible to keep the cars clean of papers, lunch boxes, bottles and other articles discarded by patrons, notwithstanding the fact that one chair car porter was provided for every two coaches operated.

Passenger Assigned to Train, Not to Seat

The train assignment program was designed to gain the appreciation of the public upon the realization that travelers would be assured a seat in a clean and comfortable car when given train assignment slips. It was inaugurated in the face of many obstacles, such as inadequate and inexperienced manpower, overburdened telephone and telegraph wires and ticket offices which for some time had been having difficulty in meeting the demands of patrons.

Under the plan, passengers are assigned to a given train rather than to a coach or seat when they present themselves at ticket offices. Telegraph or telephone requests are not honored, and no telegraphic reservations are made or accepted for connecting trains or return movements. The system is not in effect on certain local trains where there is ample room for the passengers nor in the heavily traveled commutation territory between San Francisco and San Jose, nor the territory between San Francisco and Sacramento. No change has been made in the seat reservation system in effect on the Daylights, Nos. 98-99 and 51-52, and on the Beaver, Nos. 23-24, where the practice of reserving seats and wiring for return space is still in effect.

Seats Allotted to Ticket Offices

Proportionate allotments of seats are assigned to the district passenger offices and these in turn assign space to the principal ticket offices in their respective districts. Ticket offices do not telephone to other ticket offices for space when their own allotments are gone, sales being discontinued, for the day, in each office when the allotment is sold. Ticket offices in larger cities are given assignments of space on trains from which a majority of the round trip business moves and on important connecting trains so that a transaction may be completed in the initial ticket office. Ticket offices which do not have space to protect return moves do not telephone or telegraph for it. Assignment to the various offices are adjusted from time to time to correspond to actual sales.

A special assignment of coach space, depending on requirements, is made to each ticket office for furlough and individual military traffic holding government orders. Generally, this averages 65 per cent. This space is held at city ticket offices until noon of the day of departure and at station ticket offices until train time. Group movements of either furlough or military travel are still handled through the office of the general passenger agent.

In order to simplify the issuing of train assignment space, only principal cities hold allotments of space. All intermediate stations not receiving a definite assignment sell tickets and allow the passengers to board the train without train assignment slips. At principal terminals, passengers are not allowed to board any coach trains unless they have in their possession train assignment slips. When an intermediate station sells a round-trip ticket without train assignment space, the passenger is told that he must make a reservation for the return trip or for a transfer to a train departing from a principal terminal.

Passengers traveling on passes receive the same consideration as revenue passengers when requesting train assignments. However, when no "assigned" space is available, a special permit is issued to pass holders riding coach trains on company business and conductors are instructed to allow holders of the permit to board coach trains without train assignment slips. To handle the direction of the program, five supervisory positions were added, one in each general passenger office in San Francisco and Los Angeles and one in each district passenger office in San Francisco, Oakland and Portland. In addition, 12 ticket clerks were added in various ticket offices on the system.

Coach Traffic Now More Uniform

After the first six weeks of operation, the railroad felt that the plan had been a complete success. It has been well received by the public which has found that while it cannot always secure the space anticipated on the particular date desired, it is assured of a seat. The handling of coach passengers is now more orderly and furlough traffic is on a more uniform basis since men in service, understanding that they must have train assignment slips, make their arrangements in advance or use trains on which space is available.

In addition, the system has arrested rapidly mounting travel, with the result that since the inauguration of the plan, coach traffic has declined about 10 per cent. At the same time, part of the heavy demand for certain trains has shifted to others, with the result that the number of passengers on all daily trains is approximately the same.

With fewer persons aboard, train crews find it much easier to pass through cars in the performance of their duties. Chair car porters are able to perform their duties without interference caused by people standing in aisles and vestibules and consequently the cars are much cleaner. News agents also are not hampered by crowds and dining car and box lunch service has been greatly facilitated and improved.

Communication . . .

What Shall We Call Them?

To the Editor:

We have the WAVES and we have the WACS. On the railroads we have equally conscientious women performing manual duties to assist in the war effort. Are they not entitled to some title similar to the WAVES and the WACS? If you so feel, why not start a campaign to determine what they should be called. Nationally handled it would give them more appreciation with the public than they are now receiving. Some of them, I can assure you, are faithful. Think it over. S. M. P.

* * *

"Nations who allow their rights and liberties to be subverted by tyrants must suffer heavy penalties for those tyrants' crimes."—Winston Churchill.

"Absolute arbitrary power over the lives, liberty and property of free men exists nowhere in a republic; not even in the largest majority."—From Wyoming's Constitution. (quoted by T. F. Woodlock in the Wall Street Journal).

Railroads-in-War News

Pacific Shippers Ponder War Tasks

Hear plea against political rates and address on axis transport

Port traffic, discriminatory rate legislation and the shortage of manpower were the principal subjects considered at the Sixty-third regular meeting of the Pacific Coast Transportation Advisory Board at the Leanington Hotel in Oakland, Calif., on September 16 and 17, under the chairmanship of S. E. Gates, manager, General Electric Company, Los Angeles, and was attended by more than 350 shippers and railway men.

The meeting of the freight claim prevention committee was held on September 16, and the proper packing of shipments for wartime use was discussed at length. Among the speakers were Major J. A. Hurd, Transportation Corps, U. S. Army; R. A. Podlech, superintendent freight claim prevention, A. T. & S. F., and R. G. Fagan, superintendent freight protection, Southern Pacific, as well as several shippers' representatives.

A large representation was present from the 49 car efficiency committees of the Pacific Coast territory. Tributes were paid to the railways of the area for their complete co-operation with these committees and P. P. Dougherty, assistant general freight agent, S. P., spoke on freight car efficiency as it affects the carriers.

In presenting the legislative committee's report to the meeting on September 18, Walter A. Rohde, manager, transportation department, Chamber of Commerce, San Francisco, warned that the pending rate legislation presents several highly discriminatory and otherwise undesirable features to Pacific Coast shippers and receivers. He appealed to the board to use all possible influence to prevent the passage of such bills and his recommendations were unanimously approved. Eliot J. Swan, division of research, Federal Reserve Bank of San Francisco, in analyzing the reports of the commodity committees, pointed out the extremely acute situation on the Coast with respect to manpower, and described some of the measures under consideration for alleviating this condition.

W. E. Callahan, manager, tank car section, Car Service division, A. A. R., and H. A. Huckaba, district manager of the same organization at San Francisco, discussed the national and local transportation situations, respectively. Both warned of the conditions facing the Pacific Coast in the immediate future and urged complete co-operation between the railways and the shippers to meet the highly precarious transportation conditions that are bound to occur on the Pacific Coast when the European war has been won, and the entire attention of the nation is directed to the Asiatic war.

In the principal address, Charles Layng, transportation editor of the *Railway Age*, who is also serving as transportation expert of the War division, U. S. Department of Justice, described the present situation with regard to Axis transportation. He described the plans by which Germany came perilously close to conquering the world and told what is being done by our armed forces to cripple Axis transportation.

Pointing out that American boys are giving their lives every day to hamper Axis transportation, he urged American railway men and shippers to do everything in their power to further efficient and adequate American transportation.

Lake Oil Traffic Under Permit

The Office of Defense Transportation announced September 20 that after September 27 all movement of crude oil and petroleum products on the Great Lakes and the New York State Barge Canal would be controlled under the permit system instituted by General Order ODT 19.

Heretofore such movements had been exempted from the provisions of that order through the operation of Suspension Order ODT 19-1, but these exemptions have been lifted by Amendment No. 1 to the suspension order.

Railroad-Bus Joint Action Plan

Describing it as the first coordination of intercity bus and rail service under the Office of Defense Transportation's plan for the conservation of rubber, gasoline and buses, the ODT this week announced its approval of a joint action plan entered into by the Red Star Motor Coach Lines and the Baltimore & Annapolis for operations between Baltimore, Md., and Annapolis. On the showing that the road had ample capacity to handle the additional traffic, the plan provided for restrictions on bus operations between these points to a maximum of 4,730 miles per week, with interchange of tickets by the two carriers and diversion to the railroad of such business as the bus line cannot accommodate under the limitations imposed.

The Baltimore & Annapolis is an electric line operating out of the Baltimore & Ohio's Camden Station in Baltimore, and is the only railroad serving Annapolis.

The ODT announcement pointed out that participants in joint action plans authorized by it are safeguarded from prosecution under federal anti-trust laws.

Unions Shun Hearings on Discrimination

President's Committee hears Brotherhood and Mediation Board actions assailed

While the railroads against which charges of discrimination in employment because of race or color were lodged before the President's Committee on Fair Employment Practice were represented by counsel at the public hearings held by the committee in Washington, D. C., from September 15 to 18, inclusive, the unions with which the roads are alleged to have made agreements to effect such discrimination were conspicuous by their absence. More than once during the proceedings Msgr. Francis J. Haas, chairman of the committee, called for the appearance of a union representative, but his inquiries were met with silence until, late on the last day of the hearings, an "unofficial observer" for the Brotherhood of Locomotive Engineers and the Brotherhood of Railroad Trainman acknowledged that he was present, though not participating.

As reported in *Railway Age* of September 18, page 466, the nature of the complaints and the position of the railroads on the issue were summarized in introductory statements by Bartley C. Crum, chief counsel for the committee, and Sidney S. Alderman, general solicitor of the Southern, who spoke for most roads concerned. A large number of witnesses were heard by the committee on specific complaints that discrimination had been shown by officers of individual roads in employing and promoting men, and in the membership requirements, procedures and working agreements negotiated by various unions. Their testimony was presented chiefly in response to questions from the committee's counsel and his staff, and occasionally from members of the committee. With one or two exceptions, railroad counsel did not cross-examine complainants, nor did they present testimony through witnesses.

On September 17 F. E. Burkhages, speaking for the Union Pacific, read into the record a statement to the effect that, while the summary of complaints submitted to the road in advance of the hearings had not contained a substantial showing of discrimination against Mexicans in filling positions on that road available to them on the basis of their qualifications, specific instances of alleged discrimination that were developed in the hearings would be fully investigated and, if inconsistent with the company's policy, speedily corrected. This statement was hailed by Mr. Crum as a "notable contribution to the purposes of the President's executive order" under which

the committee functions and one that "might well have been expected from a company headed by a man of Mr. William Jeffers' reputation as a public servant." This interlude was followed on September 18 by an announcement by the committee's counsel that the investigation promised already had resulted in the employment by the Union Pacific of four Mexicans on whose behalf discrimination had been charged.

In addition to the specific allegations of discrimination on account of race or color in the hiring or promotion of railroad employees, the committee's counsel developed through witnesses his general charge that such instances of alleged unequal treatment had become an effective and dangerous weapon of enemy propaganda, regularly and productively employed in Asia and elsewhere to support the assertion that white Americans do not grant equality to colored races. The first witness in this category was Clyde Miller, an associate professor of education at Teachers College, Columbia University, who described himself as the founder of the Institute of Propaganda Analysis.

The first witness to appear before the committee, however, was Dr. Herbert R. Northrup, a member of the staff of the National War Labor Board, whose testimony was described as based on studies in the field of the questions before the committee. After outlining the nature of the "anomalous position" in which the negro worker has been left by the various alleged discriminatory employment practices of the unions and the railroads, this witness asserted that the "racial policies" of the railway unions are "unique and in no way typical of organized labor in general." Much of the "blame" for such union policies was placed upon the employers by Dr. Northrup, however, as he contended that they have "used" negroes to "weaken" the unions.

This witness went on to condemn the National Railway Labor Act and more particularly its administration, challenging the characterization of this statute as a "model labor law." While labor peace has been maintained on the railroads under it, he said, such peace is the result of "tolerating, if not encouraging, intense discrimination." Under the law, he pointed out, the National Mediation Board "must often designate, as exclusive bargaining agent for negroes, a union which excluded negroes or confines them to an inferior auxiliary status. It assists parties to reach agreements which result in the displacement of colored workers. It has refused to take the racial policies of unions into consideration in determining appropriate bargaining units, thus consigning small groups of negroes to the domination of discriminatory unions. And finally, its actions have caused serious doubts as to its impartiality in disputes involving negro workers and the Big Four Brotherhoods.

"The record of the National Railroad Adjustment Board is even more open to criticism," this witness told the President's Committee. "Composed of partisans, appointed, for the most part, by organizations which do not afford negroes equal status, it has denied aggrieved negroes a hearing, let alone justice."

In discussing the National Mediation Board, Dr. Northrup referred to certain letters attributed to board members, Dr. William M. Leiserson and the late James W. Carmalt, and found in the published Report of Grand Lodge Officers of the Brotherhood of Locomotive Firemen & Enginemen to the 33rd Convention of that organization. As set forth in that document, these letters, addressed to both Alvanley Johnston, grand chief engineer of the B. of L. E. and D. B. Robertson, president of the B. of L. F. & E., developed suggestions that the brotherhoods should withdraw certain cases then (1936) before the board involving disputes between the two unions over the right to represent employees where the race question had come up. Such controversies, it was suggested, could better be resolved by agreement or compromise than by proceedings before the board.

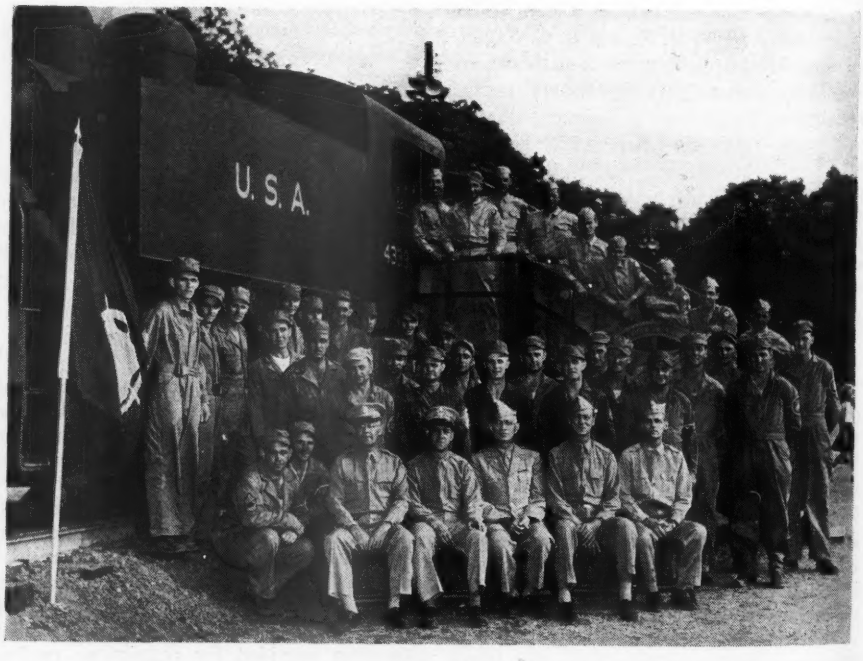
The witness enlarged upon what he considered significant passages in these documents, asserting that Dr. Leiserson had revealed tactics negro employees proposed to employ in the selection of representatives, and that Mr. Carmalt had deplored an "unhealthy condition" in the relations of the two unions where the votes of colored employees were involved. In such expressions Dr. Northrup found grounds for suspecting the impartiality of these members of the board in their consideration of disputes where representation of negro employees was an issue.

The hearings closed on September 18 without any remarks by counsel summing up the testimony developed. Chairman Haas again stated the intention of the committee to study the record and to exercise the responsibilities put upon it by the executive order, and counsel for the committee and the railroads exchanged compliments upon the harmonious atmosphere in which the hearings had been conducted.

Army's War Show Has Military Railway Exhibit

The Military Railway Service of the Army Transportation Corps is one of the branches of the Army Service Forces represented in the Army's "Back the Attack" War Show in progress through September 26 on the Washington Monument Grounds at Washington, D. C. The exhibition has been staged in connection with the Third War Loan campaign.

Almost every branch of the Army's organization participated in the show, which has attracted large crowds both to the exhibits and to performances twice daily of various units specially detailed to demonstrate the technical advances that have contributed to success on the battlefront. Much of the mechanical equipment was shown in actual or simulated operation, and the functions and organization of the ordnance, air, medical, camouflage, quartermaster's, communications and other branches contributing to the action of the



U. S. Army Signal Corps Photo

Transportation Corps' "Back the Attack" Detachment

Officers and enlisted men assigned to the Transportation Corps' section of the Army's "Back the Attack" War Show at the Washington Monument Grounds, Washington, D. C., were photographed beside the overseas type 0-6-0 saddle-tank switching locomotive that forms part of the exhibit. Enlisted men standing on the steps leading to the cab are the "train crews" from the 745th Railway Operating Battalion, sponsored by the Chicago, Burlington & Quincy. Other enlisted men are from the 755th Railway Shop Battalion, sponsored by the Norfolk & Western, and the 758th Railway Shop Battalion, sponsored by the Atchison, Topeka & Santa Fe. The officers seated in the front row are, left to right, 1st Lt. Earl S. Hendricks, Sr., formerly road foreman of engines with the Burlington, now holding the same position with the 745th Battalion; Capt. Fred Beck, formerly car shop foreman of the Long Island, now in the same capacity with the 755th Battalion; Lt. Col. Dawes E. Brisbine, formerly transportation attorney, now chief, Military Railway Branch, Rail Division, Office of the Chief of Transportation; Col. John A. Appleton, formerly general manager of the Pennsylvania at New York, now chief, Rail Division, Office of the Chief of Transportation; and Maj. Neal J. Holland, formerly commerce representative of the Boston & Maine, now assistant to the chief, Rail Division, Office of the Chief of Transportation.

combat units were the subject of extensive displays.

In addition to a variety of motor, marine and amphibian equipment and maps and photographs illustrating the work of various divisions of the Transportation Corps, the work of its shop battalions in erecting cars in the field was demonstrated, and a train made up of representative units of overseas equipment was placed for the examination of visitors. This train consisted of the locomotive shown in the accompanying illustration, which was built at the Vulcan Iron Works, Wilkes-Barre, Pa., and of 5 cars, all of typical European design, with two-wheel trucks, link couplers, and short wheelbase.

The cars on exhibit included a two-car mobile shop unit, consisting of a power car and a mobile machine shop, "goods vans," gondolas, a flat car and a "brake van," or caboose. The structural parts of the goods van, gondola, and brake van are largely interchangeable. The goods van, or box car, and gondola each have a capacity of 40,000 lb. The light weights of the three specimen cars in the train are: goods van, 17,300 lb.; gondola, 15,300 lb; and brake van, 17,700 lb.

ODT Appointments

E. F. Sinclair has been appointed assistant to the director of the Division of Railway Transport, Office of Defense Transportation, succeeding J. D. Loftis who has been transferred to the position of rail traffic flow chief in the Division of Traffic Movement. Mr. Sinclair who came to ODT from the Wabash last January has been serving as assistant associate director of the Division of Railway Transport, in charge of rail-truck conservation work in the Eastern and Southern regions. Mr. Loftis replaces F. L. Yeater who has gone to Chicago to serve as deputy director in the office of W. F. Kirk, associate director in charge of the Division of Railway Transport's operations in the Western region.

Price Increase for Locomotive Steel Castings

Increased prices for all railroad locomotive steel castings, except main frames, superheater headers, gears and gear cases, have been authorized by the Office of Price Administration. The increase, authorized "because costs have mounted well above existing ceilings," will amount to "21 per cent above the Comprehensive Report of the Steel Founders' Society."

At the same time OPA denied price increases sought on railroad specialty castings, except with respect to bolsters where a raise of approximately 10 per cent was authorized, and rigid yokes where an 11 per cent increase was approved. The changes will be authorized in Amendment No. 8 to Revised Price Schedule No. 41, and will become effective "sometime later this month."

According to the announcement, OPA acted "to make possible a sharp expansion in the production of locomotive castings to meet the current record schedule of 4,000 new locomotives in 1944 for military, lend-lease and domestic needs." The action followed expressions of concern by the War Department and Office of Defense Transportation that this 1944 program "may be delayed because of a possible lag in production of steel castings."

New WPB Symbol for Operating Material Orders

The War Production Board announced September 18 that its Preference Rating Order P-142, applying to "material entering into the operation of transportation system," has been amended to substitute the allotment symbol T-7 for the previous symbol MRO-P-142 on purchase orders. Certain sections of the original order which are now obsolete were deleted at the same time.

ODT Cuts Down Its Tank Barge Building Program

Affording further evidence of an improved petroleum transportation situation, the Office of Defense Transportation announced September 23 that major revisions have been made in its tank barge building program, both to effect a saving of steel and to augment the dry cargo barge fleet, which is, it states, being called upon to meet "rising needs" in the movement of coal, grain, sulphur and similar commodities on the Mississippi system.

The adjusted program will eliminate two river towboats and 13 steel tank barges from the scheduled production of new equipment for use on the river. The original program called for 168 steel tank barges. 100 of these will be completed, while 55 will be converted to dry-cargo units of standard hopper construction. The capacity of the converted barges will be increased by the addition of a wooden bulwark or combing.

At the same time a further modification of the plan to build wooden and composite barges for the petroleum movement was made public. A reduction in this program was reported in *Railway Age* of September 11, page 433. It has now been decided to complete only 159 of these units as tank barges, out of 269 planned after the revised program was made effective, while the remaining 110 will be constructed to serve as a reserve to be fitted up as deck scows, tank barges, or dry cargo hoppers, as needs develop.

New Haven Exhibits Hospital Train in War Bond Drive

In connection with the Third War Loan Drive, the United States Army, in cooperation with the New York, New Haven & Hartford, placed on exhibition at Grand Central station, New York, on September 21, a fully-equipped and staffed four-car Army Medical Department hospital train. The train, made up of converted Pullman cars, consists of a ward car which accommodates 32 patients, a car fitted as an operating room, a unit with personnel quarters and kitchen, and a ward dressing-room car.

The hospital car will also be exhibited at various points in New England—with the hope of stimulating war bond sales both to the general public and to New Haven employees.

New York's Mayor Fiorello H. LaGuardia visited the special train shortly after it was placed on exhibition on September 21. He was presented with a $100 war bond by Howard S. Palmer, president of the New York, New Haven & Hartford. After accepting the bond, the Mayor announced that he would turn it over to the first baby born in New York City after 8:12 a.m. September 21 (the exact time the bond was presented to the Mayor) whose father is a service man—the selection of the winner to be determined after consultation of Health department records.

Interior View of the Hospital Train's Ward Car

The car has 32 beds—upper berths may be let down against wall to provide backs for seats for men who are able to sit up.

GENERAL NEWS

Must Publish Tariff for Red Cap Service

It is " transportation," I. C. C. says in decision in Dayton Case

Services performed by Dayton Union Railway Company red caps in carrying to or from trains the hand baggage and personal effects of passengers traveling in interstate or foreign commerce "is transportation, as that term is used in Part I of the Interstate Commerce Act," and the charges made for such service "must be published and filed" with the Interstate Commerce Commission. The commission has so ruled in a report in the No. 28842 proceeding wherein Dayton Union was called upon to show cause why it should not publish a tariff covering the 10-cents-per-bag charge assessed at its union passenger station in Dayton, Ohio.

The commission, as the report put it, was "following and reasserting" Division 3's decision of July, 1941, in *Stopher v. Cincinnati Union Term. Co., Inc.* There as noted in the *Railway Age* of July 19, 1941, page 128, the Cincinnati Union Terminal Company was ordered to file a tariff covering its red cap services. The present decision in the Dayton case divided the commission five to three. The majority report by Commissioner Aitchison was presumably subscribed to also by Chairman Alldredge and Commissioners Rogers, Johnson, and Patterson. Commissioner Mahaffie, a dissenter in the Cincinnati case, was again in disagreement, and he was joined by Commissioners Porter and Miller. Commissioners Lee and Splawn did not participate.

The majority report made it clear that, in reaching its conclusion, the commission was concerned only with persons using the Dayton station "as interstate passengers passing through with their hand baggage at the beginning or end of their journey." It was not concerned "with any services which may be performed by the red caps for non-passengers, nor services performed for passengers," except the handling of baggage "as part of and in connection with their interstate journey."

Previously, the commission had looked over the station layout and methods of handling hand baggage, making note of the rule which forbids anyone but ticket holders from going to the train-boarding platforms. Also, it noted that Dayton is a "way station" where the red cap service "is an important facility in saving time and keeping traffic moving, and in avoiding confusion in the station and upon the platforms." All of which was added up to a finding that "the physical connection between the transportation of a passenger by the proprietory railroads using respondent's station, and the handling of such passenger's baggage to and from the trains . . . is close and direct."

To the respondent's contention that red cap service "is not essential for the adequate transportation by rail of passengers and their baggage," the commission replied, by restating the foregoing to say that "red cap service [at Dayton] facilitates train movement and makes for greater safety of operation." Likewise rejected was another Dayton Union contention that "red cap service is not a transportation service at common law." The commission found that "not material" in view of Interstate Commerce Act provisions upon which it relied. These, among others, included the tariff-filing requirements of section 6; section 1 (3) (a)'s definition of a "railroad" as something which includes, among other things, "terminal facilities of every kind used in the transportation of the persons or property designated herein . . . "

Finally, the commission dismissed, as matters to be considered as they arise, other respondent suggestions of "harmful effects" which might flow from the finding that the red cap charges must be published. These included suggested difficulties of drawing the line between the red cap services involved and other station services; the matter of the carrier's liability as insurer of the baggage; and the opening of the door to the exercise of local jurisdiction by various regulatory commissions.

Sugar Embargo Canceled

The Car Service Division of the Association of American Railroads on September 16 canceled its order of August 26, which had placed an embargo on the loading of freight cars with raw sugar at all ports. The cancelation resulted from the fact that approximately 2,000 carloads of sugar, which had accumulated either at or en route to Baltimore, Md., Philadelphia, Pa., New York, and Boston, Mass., have now been unloaded at the refineries.

Onion Order Amended by WFA

Producers and shippers in the 12 states where onion shipments are controlled under a permit program will be allowed, effective September 23, to move their onions into any type of storage within a radius of 25 miles without obtaining a permit, if they did so last year, the War Food Administration announced September 20. Previously, these shippers could move their onions only into common storages without refrigeration facilities.

No Ardor in West For Rate Revision

Governors refuse to support Southern politicians in attacking class rates

A resolution which stated that Western and Southern governors' conferences would pursue their separate ways in freight rate studies was the net result of a meeting of Western and Southern governors at Denver, Colo., on September 17 and 18. It had been expected that the Southern governors not only would seek concerted action with the West to obtain "non-discriminatory" freight rates in both territories, as was announced following the annual governors' conference last spring in Columbus, Ohio, but that coalition might also be effected in support of the so-called statutory rate-making bills which would establish uniform rates for the United States, based on a system of zones. The principal point of contention, upon which the two groups broke into separate camps, was freight rate revision. Governors Ellis Arnall of Georgia, Olin D. Johnston of South Carolina and Chauncey Sparks of Alabama, principal spokesmen for the Southerners, advanced a proposal for a review and action by Congress on the freight rate problems. Governor Dwight Griswold of Nebraska, spoke against taking freight rates to Congress because "it would probably become a political matter," while other opposition to the proposals of the Southern governors was led by Governor Warren of California with the active assistance of Governors Bottolfsen of Idaho, Langlie of Washington and Ford of Montana.

Western governors reufsed to endorse "strait-jacket" freight rate bills and exacted from the chairman of the Southern governors' conference an admission that the Southern governors do not support such bills. They declined to endorse the position of the Southern governors generally on freight rates and also declined the invitation of the Southern governors for a further joint conference on the subject.

The resolution that was passed read as follows:

"Resolved by the Western and Southern Governors' Conference, first that the states of the Western governors, independently through their appropriate state agencies, study the freight rate subject with respect to any discriminaions that may affect the respective Western states; and second, that a liaison committee of the two groups be appointed to study matters of mutual interest other than freight rates

(*Continued on page 502*)

Bright Future Seen for Planes and RRs

Planners suggest more federal aid for air, but rails will retain heavy freight

Another prediction of "great and rapid" post-war expansion by the air transport industry—based, incidentally, on an assumed "substantial financial support" by the federal government—is expressed in a 30-page booklet, "The Outlook for Domestic Air Transport," made public September 23 by the National Planning Association. The study was prepared by Ernest W. Williams, Jr., an "economic analyst of transportation problems with the War Production Board," who was formerly attached to the staff of the National Resources Planning Board and in that capacity contributed chapters on the development of transportation in the United States and on trends in the transportation industry to that board's 1942 report on "Transportation and National Policy," reviewed in *Railway Age* of November 7, 1942, page 748.

The booklet just published bears the same title as a "technical paper" prepared by Mr. Williams for the NRPB, and its content was adapted from that document, one of the "memoranda" transferred to the National Archives when that board's activities were terminated after the failure of Congress to provide further appropriations. In this connection it was mentioned in *Railway Age* of July 24, page 187, along with a review of another paper, prepared by the same writer, discussing the future of the railroads.

The sponsor of the present study, the National Planning Association, which describes itself as "a private, non-profit research organization devoted to planning by leaders in business, labor, agriculture and government," was also the sponsor of the booklet, "The Crisis in Transportation," in which, as was reported in *Railway Age* of September 13, 1941, page 423, a forecast was published of a critical freight car shortage in the fall of 1941, of such magnitude that a breakdown of rail transportation was implied with serious consequences for the national defense program.

While Mr. Williams predicts confidently that domestic air transport will absorb most of the first-class passenger business now handled by the railroads and will handle 75 per cent at least of the first-class mail and "a very substatial air express traffic possibly exceeding present railway express volume" he takes the position that "air transport is essentially complementary to surface transport and will not greatly damage the latter."

Pointing out that no other industry "has given rise to such abundant hopes" the author develops his argument that "land-bound" forms of transportation may have a brighter future than some of the more zealous aviation enthusiasts have conceded. "It appears doubtful" he remarks, "that the immediate post-war future will witness much change in the relative position of air and land transport, even though important improvements in all these aspects of service may be expected." In the last pre-war year, he points out, aviation "accounted for an extremely small proportion of the nation's transportation business—only about 0.44 per cent of passenger traffic if automobile travel be included, and much less than 1 per cent of the freight business. On the other hand, air passenger traffic in 1941 was over 4.5 per cent of total railroad passenger travel, and 14 per cent of Pullman traffic."

The "most phenomenal impact of the war on airline traffic was in the growth of the air express business and the shift in its composition and character," he says further. In this he sees an indication, suggested but not developed in the study, the motor transport, "carrying for the most part high-class traffic more closely analogous to that which the airlines might attract," is more exposed to post-war inroads on its freight business than are the railroads, with their lower ton-mile costs.

On the question of costs the article undertakes to deflate some of the claims advanced for the airlines' cargo-carrying potentialities. "It has been pointed out that theoretically a mere 40,000 planes of 20 tons capacity each could produce the same number of ton-miles in a year as the entire railroad system of the United States . . .," it reads. "The comparison is of academic interest only, because the great bulk of railroad traffic could not economically be handled by plane and the fuel and manpower requirements for so vast an air operation would be fantastically great." Again the suggestion is made that "air transport is likely to be complementary and supplementary rather than actively competitive with the greater part of the ground transport system."

Prospective technilogical improvements in aviation are reviewed at some length in the study, and war-stimulated developments in planes and motors and accessory equipment are referred to as suggestive of the impact of the post-war surplus of planes, pilots and technicians on commercial transportation. In this field, however, it points out problems still to be solved. "The greatest drawback of aviation is its uncertainty and the likelihood of delay or cancellation of flights because of adverse weather conditions." Here much has been accomplished by research, but devices developed to allow landings to be made by planes when visibility is poor "have not yet reached the point where they can be relied upon in regular commercial operation," the article goes on to say. In future developments of radar the author sees some prospect of relief from this major obstacle to regularity of service.

In the passenger field, the study predicts that "within a decade or two after the termination of the war" the airlines will have attracted "most of the long-haul Pullman traffic." Suggesting that about 75 per cent of the regular rate first-class mail traffic might be handled by air, provided a network of feeder lines is set up to reach "hundreds of communities not now served by air mail," the publication goes on to speculate that such a development could be made without additional cost to the Post

(*Continued on page 503*)

Kendall Calls for Still Better Car Utilization

Only thus can roads meet fall peak and make railroad history, he says

Preparing for a record freight traffic in the next few months, the Car Service Division of the Association of American Railroads this week appealed to the railroads to exert maximum effort to handle it. "Only by getting more useful and more productive days service from every car than has ever been done before will the fall requirements be met," said Warren C. Kendall, chairman of the Division, in a personal message to the transportation officers of the various railroads.

"The next sixty days will make railroad history," Mr. Kendall said in his message. "We approach the period of peak carloading with a record performance which has been aptly described as 'nothing short of miraculous.' The railroads have been and are performing the greatest transportation job of their history and they are doing it with less equipment and manpower than they formerly had. October, 1943, can go down in history only in two ways —either as the crowning glory in a year of peak railroad performance, or as the time when the war load finally overpowered the Iron Horse. Here is a real challenge to everyone connected with the industry to do his part in seeing to it that the performance is creditable. Bear in mind that we enter this period with the good will and the support of everyone connected with transportation, either as users or as supervisory governmental agencies. Our performance in the past created this attitude and the proper performance in the next sixty days will maintain it.

"Let us look at the record!

"1. In every month of the first half of this year carloadings were below the same month last year, the aggregate reduction being 4.6 per cent. Yet ton-miles in the same period increased 60 billion, or 20.6 per cent.

"2. Miles per car per day average 47.7 exactly the same as for the last half of 1942 and the highest ever reported.

"3. The percentage of empty mileage was down to 36.6 versus 37.1 last year and 37.3 in the last half of 1942.

"4. For the first quarter of 1943 the average haul per ton of freight was 515 miles against 454 last year.

"5. For the same period the average tons per car of carload freight was 40.61 compared with 37.56 last year. This increase in load per car alone saved the use of 114,632 cars and reduced the carloadings by 652,944.

"6. The average turn-around time of serviceable cars, while higher in the first six months due doubtless to longer hauls, was down to 13.7 and 13.3 in July and August respectively, both below last year and only slightly over the October, 1942, figure of 13.1 days.

"Since July 1 the carloading trend has been reversed, every week but one showing an increase over last year, and the last

two weeks reported topping 900,000 cars. These high figures indicate the probability of demands in October for cars exceeding the 1941 requirements of the high week when loading reached 922,884. It will be recalled that in 1941 when the peak week of loading was recorded merchandise L.C.L. loading was running about 60,000 cars per week greater than at present. As cars loaded with L.C.L. make a quicker turn than the average of carload traffic the supply of cars must be stretched a little further because of the present greater percentage of carload traffic to total.

"Little help can be expected from additional new cars or locomotives. In the first seven months last year 51,606 new cars were installed; this year the equivalent figure was 12,030. The only possibility of protecting new high loading demands will be through persistent and more intensive attention to every detail of car handling that will promote more efficient use. Only by getting more useful and more productive days service from every car than has ever been done before will the fall requirements be met.

"Recent developments in Italy might easily have promoted a false sense of impending victory that would operate disastrously to the car efficiency program. This relaxation of effort could affect shippers and railroad men alike. If either of these partners in car efficiency allow their steam gauge to drop a single point the result will be car delays and car shortages. Rather we must realize that the war is a long way from being won and greater efforts than ever must be exerted."

Safety Poster for October

The poster issued by the Committee on Education, Safety Section, A. A. R., for the month of October is entitled "Time, Work Safely—Save Men, Save Money—Save Time", and depicts graphically time poorly spent and swell spent.

Names Ship After Northern Pacific President

The 10,500-ton "Victory" cargo ship launched at the Kaiser Shipbuilding Corporation yard at Portland, Ore., on September 15, was christened the "Frederick Billings" in honor of an early-day president of the Northern Pacific. Mr. Billings, who was active in legal, financial and public affairs in California, Oregon and Washington, was president of the Northern Pacific from 1879 to 1881 and a director for a number of years.

Mid-West Board Meeting

The Mid-West Shippers Advisory Board will hold its sixty-fourth regular meeting at Chicago on October 7. Speakers at the morning session include Dr. Sidney L. Miller, assistant to the deputy director of the Office of Defense Transportation, who will discuss new equipment for the railroads; and L. M. Betts, manager of the Railroad Relations section of the Car Service division of the Association of American Railroads, who will talk on national transportation conditions.

At a joint luncheon with the Traffic Club of Chicago, the presidents of several Mid-west industries will be guests. Dr. Alfred P. Haake, economist and lecturer will address the luncheon gathering on "Gullible Uncle Sam."

Ex Parte 158 to Be Argued

The Interstate Commerce Commission has announced that its Ex Parte 158 proceedings, involving the question of compulsory competitive bidding in the sale of railroad securities, will be assigned for oral argument before the commission at a time to be set later. Meanwhile, reply briefs will be received for a period of 20 days beginning September 18.

Proposed Amendments to Pension and Unemployment Acts

Three bills have been introduced in the House of Representatives by Representative Price, Democrat of Florida, to provide for exemption from the railroad retirement and unemployment insurance systems of municipalities operating "not more than one switch engine on its own tracks as a plant facility within its single restricted municipal wharf area." The bills are H.R. 3303 to amend the Carriers Taxing Act of 1937; H.R. 3304 to amend the Railroad Retirement Act; and H.R. 3305 to amend the Railroad Unemployment Insurance Act.

"Hiawatha" Traffic Up 60 Per Cent

Sixty per cent more revenue passengers were handled on the fleet of "Hiawatha" trains of the Chicago, Milwaukee, St. Paul & Pacific in August of this year than in August, 1942, according to F. N. Hicks, passenger traffic manager of the road. A total of 164,599 paying passengers were carried in August, 1943, compared with 98,379 in August, 1942, and 71,671 in August, 1941.

Four units of the Hiawatha operate daily between Chicago and Minneapolis, two units, known as the Midwest Hiawatha, run between Chicago and Omaha-Sioux Falls, and occasional units are operated between Chicago and the Wisconsin North Woods region. The units leaving Chicago and Minneapolis in the afternoon carried the greatest number, handling 57,711 passengers during August, an average of 1,862 daily on the two trains. These figures include "through" passengers as well as those who traveled shorter distances, but do not include the more than 16,000 who traveled on the North Woods sections. The Hiawathas leaving Chicago and Minneapolis in the morning carried 53,412 in August, a daily average of 1,723 on both trains. The Midwest, Hiawathas handled 36,838, a daily average of 1,188 on the two units. As many as 16 cars are operated in a Hiawatha unit.

Non-Ops "Hopeful"

Leaders of four unions representing non-operating railroad employees conferred with President Roosevelt on September 16 in connection with their efforts to obtain government approval of the understanding which they have reached with railroad management for settlement of the pending wage controversy wherein the eight-cents-per-hour increase recommended by a National Railway Labor Panel emergency board has been stayed by Economic Stabilization Director Fred M. Vinson.

Attending the conference with the President were George M. Harrison, president of the Brotherhood of Railway Clerks, B. M. Jewell, president of the Railway Employees Department, American Federation of Labor, E. E. Milliman, president of the Brotherhood of Maintenance of Way Employees, and A. E. Lyon, president of the Brotherhood of Railroad Signalmen of America. Mr. Harrison told reporters that the wage question had been discussed, and that he was "hopeful" that a basis would be developed for putting into effect the labor-management understanding which has been reported to involve adjustments amounting to substantially what was recommended by the emergency board.

He went on to say that "people out in the country" were "very much exercised" about the delay in getting action, adding that such delay was resulting in a "tremendous" turnover among the non-operating employees.

Would Permit Dogs to Remain With Blind Travelers

Representative Talbot, Republican of Connecticut, has introduced H.R. 3294 to provide that a blind traveler may keep his seeing-eye dog with him in any coach or Pullman car, and that such travelers shall not be required to obtain private or separate berth or other sleeping accommodations for the dogs. The bill also provides that the dogs must be "properly and safely muzled."

Law Relating to Embargoes

The Interstate Commerce Commission on September 21 made public "A Study of the Law Relating to Embargoes of Common Carriers Subject to the Interstate Commerce Act," which was made by Thomas J. Delaney and Tobias Naftalin, examiners of the Bureau of Motor Carriers. The study covers 86 mimeographed pages.

It was undertaken "at the direction of Chairman Alldredge," but it embodies "the personal views of the writers"; and "it has not been considered or adopted by the commission."

Equipment on Order

Class I railroads on September 1, had 28,433 new freight cars on order, according to the Association of American Railroads. On the same date last year they had 35,063 on order.

This year's September 1 total included 5,551 plain box, 2,825 automobile box, 3,833 gondolas, 14,165 hoppers, 300 refrigerator, 200 stock, and 1,559 flat cars.

Railroads also had 1,038 locomotives on order on September 1, which included 461 steam, four electric, and 573 Diesel-electric. On September 1, 1942, they had 861 locomotives on order which included 323 steam and 538 electric and Diesel-electric.

Class I railroads put 15,744 new freight cars in service in the first eight months of 1943, compared with 53,695 in the same period last year. Those installed in the eight months of 1943 included 6,783 hopper,

6,257 gondola, 1,830 flat, 135 automobile box, 688 plain box, one refrigerator, three stock, and 47 miscellaneous freight cars.

They also put 408 new locomotives in service in the first eight months this year, of which 264 were steam, 14 electric, and 130 Diesel-electric. New locomotives installed in the same period last year totaled 514, of which 207 were steam and 307 were electric and Diesel-electric.

The Office of Defense Transportation reported 48 new locomotives on order on September 1, and 16 new locomotives installed in the first eight months of this year by other than Class I carriers. This brings the total of new locomotives on order on September 1 to 1,086 and the number installed during the first eight months to 424.

Missouri Pacific Plans Museum

A Historical Museum committee has been appointed by L. W. Baldwin, chief executive officer of the Missouri Pacific, to "devise means for the assembling of data, relics and mementos of the property's past and for preserving them in such a manner that they will constitute an authentic record of the railroad's course and achievements." The establishment of a museum has been under consideration for a number of years and employees, in anticipation of it, have, for many years, sent to the executive offices old time table folders, maps, waybills, payroll lists and other documents.

Representation of Employees

Although it neither claimed representation nor had places on the ballots, a write-in vote for the Congress of Industrial Organizations has won it the right to represent machinists, boilermakers, their helpers and apprentices, and roundhouse and railway shop laborers employed in the Delaware, Lackawanna & Western's Hoboken, N. J., marine shop.

The vote came in an election which has recently been certified by the National Mediation Board, the Brotherhood of Railway Carmen of America, operating through the Railway Employees Department, American Federation of Labor, winning the right to represent the shop's carmen, their helpers and apprentices. Because no organization or individual received a majority of the legal votes cast, the Board was unable to make certifications with respect to blacksmiths and sheet metal workers, their helpers and apprentices. The election was sought by the Railway Employees Department, A. F. of L.

Dealing with the write-in vote for C.I.O., the Board had this to say: "The result of the election . . . shows that 'C.I.O.' was written into the blank line on the ballots. The designation 'C.I.O.' obviously refers to the Congress of Industrial Organizations, which comprises many affiliated units. The intent of the voters being plain, the C.I.O. will be certified for the crafts in which it received a majority vote."

Meanwhile, the C.I.O. was also winning another recent election on the Lackawanna, its Marine Engineers Beneficial Association being certified to represent the road's licensed marine engineers This election was the follow-through from the Board's decision (see *Railway Age* of September 18, page 467) determining that these licensed marine engineers constituted a craft or class of employees for purposes of the Railway Labor Act. A third C.I.O. victory came when its United Transport Service Employees of America won the right to represent dining car employees of the Chicago, Rock Island & Pacific.

In other recent elections, the Brotherhood of Railroad Signalmen of America won the right to represent signal department employees (signal foreman, linemen, and signal maintainers) of the Chicago & Illinois Midland; and the Brotherhood of Railway Clerks won the right to represent the Savannah & Atlanta's clerical, office, station and storehouse employees, and agents and telegraphers.

Hearing on Freight Forwarder Insurance Regulations

The Interstate Commerce Commission, Division 5, has instituted upon its own motion a proceeding relating to the issuance of regulations governing insurance of freight for orders subject to Part IV of the Interstate Commerce Act. The proceeding is docketed as Ex Parte No. 159, and hearings will be held before Examiner Coyle at the Hotel St. George, Brooklyn, N. Y., on October 13.

The order instituting the proceeding was accompanied by a tentative draft of insurance regulations, prepared by the commission's staff "with the thought that it will aid in focusing attention on the proper provisions of such regulations." The tentative draft "has not been reviewed or approved by the commission."

Freight Car Loadings

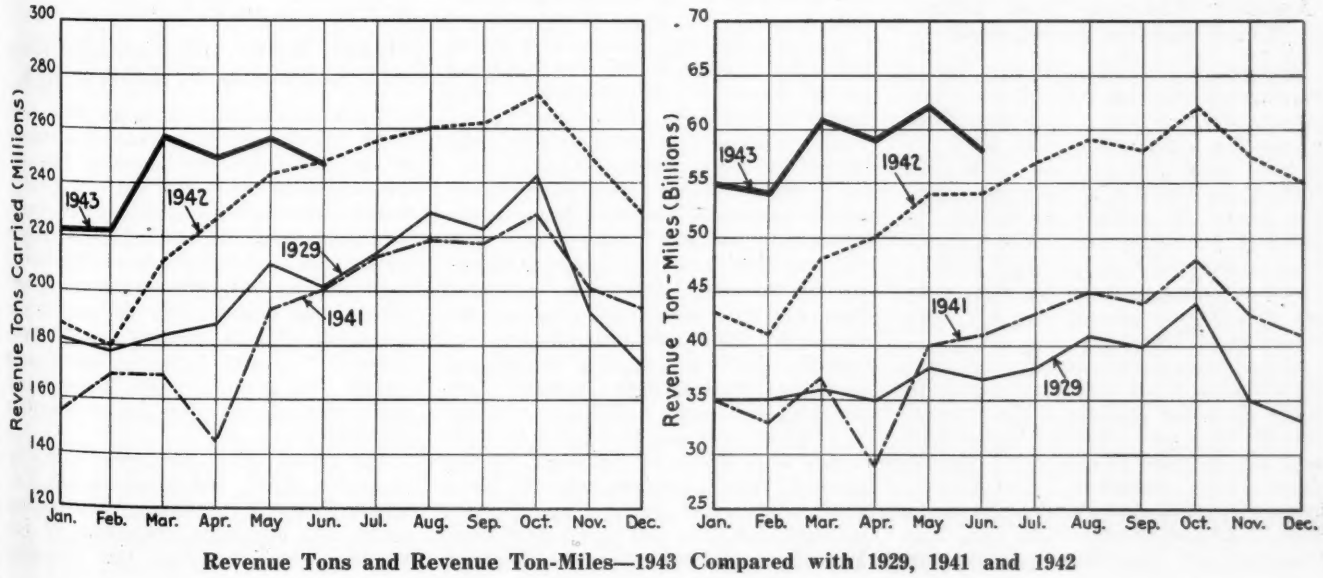
Carloading reports were so delayed this week that the Association of American Railroads had not announced the total for the week ended September 18 when this issue went to press.

Loading of revenue freight for the week ended September 11, which included the Labor Day holiday, totaled 834,671 cars and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, September 11			
District	1943	1942	1941
Eastern	154,016	145,443	185,708
Allegheny	183,892	173,386	201,891
Pocahontas	55,570	53,369	60,722
Southern	115,091	113,119	124,848
Northwestern	135,673	141,542	147,647
Central Western	121,937	121,847	133,209
Southwestern	68,492	66,191	60,631
Total Western Districts	326,102	329,580	341,487
Total All Roads	834,671	814,897	914,656
Commodities			
Grain and grain products	47,768	45,396	45,046
Live stock	16,501	15,336	14,452
Coal	170,100	153,485	171,792
Coke	14,473	13,429	12,946
Forest products	41,788	46,291	46,812
Ore	83,338	82,676	74,448
Merchandise l.c.l.	93,242	79,278	158,912
Miscellaneous	367,461	379,006	390,248
September 11	834,671	814,897	914,656
September 4	901,075	887,960	797,791
August 28	904,007	899,405	912,720
August 21	891,197	869,434	899,788
August 14	887,165	868,845	890,337
Cumulative Total, 37 Weeks	29,694,620	30,439,298	29,439,986

In Canada.—Car loadings for the week ended September 11 totaled 62,781 compared with 69,341 for the previous week (due mainly to the holiday on Monday,



Revenue Tons and Revenue Ton-Miles—1943 Compared with 1929, 1941 and 1942

September 6), and 60,995 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Sept. 11, 1943	62,781	37,013
Sept. 4, 1943	69,341	39,071
Aug. 28, 1943	69,164	39,401
Sept. 12, 1942	60,995	33,904
Cumulative Totals for Canada:		
Sept. 11, 1943	2,373,943	1,385,341
Sept. 12, 1942	2,352,576	1,235,909
Sept. 13, 1941	2,192,551	1,081,933

Eight Months Ton-Miles 18 Per Cent Above Last Year

Class I railroads handled about 11 per cent more ton-miles of revenue freight in August than was handled in the corresponding month of 1942, according to a preliminary estimate prepared by the Association of American Railroads.

In the first eight months of 1943, Class I roads performed approximately 18 per cent more revenue ton-miles of service than in the same period of 1942, 60 per cent more than in the same period of 1941, and 138 per cent more than in the first eight months of 1939.

The following table summarizes revenue ton-mile statistics for the first eight months of 1943 and 1942:

	Revenue Ton-Miles of Freight		
	1943	1942	Per Cent Increase
6 Months.	349,948,647,000	290,156,269,000	20.6
July ...*a*	64,400,000,000	56,956,174,000	13.1
August *b*	65,000,000,000	58,626,310,000	10.9
8 Months.	479,348,647,000	405,738,753,000	18.1

a Revised estimate.
b Preliminary estimate.

Date of Through Routes Order Further Postponed

The Interstate Commerce Commission in an order by Commissioner Aitchison has further postponed from October 28 until November 27 the effective date of its order in the No. 28647 proceeding, which prescribes routes through Hagerstown, Md., which short-haul the Pennsylvania. The commission's report, which interprets the Transportation Act of 1940's through-routes provisions, was reviewed in the *Railway Age* of April 3, page 686.

Another Chicago-Twin Cities Truck Service Sanctioned

With dissenting commissioners issuing warnings of the "stop before it's too late" variety, the Interstate Commerce Commission has authorized another truck line to build up a Chicago-Twin Cities route through the purchase of operating rights. The report on further hearing in No. MC-F-1813 reverses Division 4's adverse decision and permits the Moland Brothers Trucking Company to acquire certain operating rights and property of the Flambeau Freight Lines.

It was a six-to-four decision for which the majority relied on the precedent set in the six-to-five decision in the Standard Freight Lines case, reported in the *Railway Age* of April 3, page 690. Commissioner Rogers concurred "in the results," because the Standard decision "seems to apply." Dissenting expressions came from Commissioners Lee, Miller and Splawn, while Chairman Alldredge's agreement with Mr. Lee was noted.

The latter complained that the new route would divert traffic from existing operators, and thereby impair their ability to render their present services. It seemed to him that the majority's action accorded "the interest of vendees, rather than that of the public, controlling weight." The approval of another Chicago-Twin Cities service looked to Mr. Miller like "a far cry from the fostering of sound, economic conditions in the motor transport industry." He warned that if the commission were to continue approval of new services "on anything but the strangest of evidence" that such services are essential, "confusion and, indeed, bankruptcy of individual existing carriers eventually are almost certain to result."

Mr. Splawn took the position that the preponderance of evidence did not support a finding that the operation will be consistent with the public interest. He objected to predicating the findings on the facts adduced in the Standard case, adding that in any event "such facts would be changed to the extent that additional operations were therein authorized and presumably instituted."

H. & M. Local Fare Again Before the Commission

The Interstate Commerce Commission has ordered a hearing on September 28 at Washington, D. C., before Examiner Koch on the "propriety and lawfulness" of its modified order in the Hudson & Manhattan passenger fare case, under which, as reported in *Railway Age* of August 14, page 291, that road was permitted conditionally to charge a local fare of 10 cents, or 11 tokens or $1, between Jersey City, N. J., and Hudson Terminal, New York. The order limited the scope of the hearing and provided that additional briefs would not be received and further argument before the commission would not be heard.

No Ardor in West for Rate Revision

(*Continued from page 498*)

and also consider the advisability of another joint meeting of the two groups."

Asserting that his experience in Washington had taught him that "We had better handle more of our problems at home where they are best understood," W. M. Jeffers, resigned rubber czar, and president of the Union Pacific, told the conference that he did not "believe that we want to put business in a straight-jacket in the West and the South." Mr. Jeffers made this statement in reply to Governor Chauncey Sparks of Alabama who contended that rates on manufactured goods shipped out of the South were discriminatory and that the South would carry its fight to Congress if the Interstate Commerce Commission failed to act quickly.

"I think I can say that I can be catalogued as a friend of the West, because of my 53 years' experience with the Union Pacific, because of the fact that I am a Western man, born and raised in Western Nebraska and Eastern Colorado. Speaking as a friend of the West and mindful as I am of the necessity for decentralization of industry into all sections of the country, I still do not agree that the way to correct the situation, if it needs correction, is to go to the Congress of the United States, for we have states in the West with as few as three members of the Congress. We in the West do not want to build up a situation so political that the states north of the Ohio river and east of the Mississippi are going to determine to what extent the West or South can expand.

"I am a great believer of fundamentals. One of the wisest actions this nation ever took was to create the Interstate Commerce Commission. That body has been functioning since 1887 and there has never been a breath of scandal connected with any decision of that commission. All the states in the union have created their public utility commissions which are in control of intra-state rates. As such, they are vitally interested in through rates; they are vitally interested in so-called class rates as distinguished from carload rates. In the West I think that 85 per cent of our rates are commodity rates and 15 per cent so-called class rates.

"There may or may not be need for correction in the freight rate structure, but we have an Interstate Commerce Commission which is now authorized to do the very thing that the governor of Alabama suggested that Congress should do. The state railway commissions also have their authority. In the final analysis uniform rates mean mileage rates and they in turn mean a straight-jacket for redress can not be obtained.

"A new industry in Colorado, for example, is under consideration. That industry can and does discuss these railroad freight rates with the various railroads serving the territory. If the railroads and the particular industry can agree on a rate, that rate is submitted to the commission and is either approved or disapproved. If the commission approves, the rates go into effect.

"I have talked with a number of prominent shippers in the South and they don't want to be in a position where the East, with its tremendous power in Congress, can control and direct the decisions of the Interstate Commerce Commission."

Makes Rules for Consolidation of Shipments by Forwarders

While expressing the view that railroads and motor carriers could not engage in such services without creating "important possibilities of discrimination," the Interstate Commerce Commission has nevertheless sanctioned the continuance of freight forwarders in the business of consolidating small shipments from several consignors into a larger shipment for delivery to one consignee. The commission did, however, disapprove present forwarder tariff provisions and practices, and prescribed a new set of rules to cover the consolidation operations.

The report by Commissioner Aitchison is in No. 28894, and Commissioner Patterson dissented, complaining that the majority was approving operations by forwarders while conceding that the same

operations by railroads and motor carriers would be unjustly discriminatory. Yet, Mr. Patterson went on, the Interstate Commerce Act's prohibitions against unjust discrimination are the same in the case of forwarders and in the case of the common carriers. Also, he recalled that "substantially similar consolidation arrangements" have in the past been found unlawful when proposed by the Railway Express Agency or its predecessors.

The majority seemed to have some misgivings itself, for it recognized that under the new rules "it is not certain that unjust discrimination and other abuses can be entirely obviated." Thus its conclusions are without prejudice to different ones which might be reached "after the arrangements herein approved have been in effect for a sufficiently long period to determine their operation in practice."

Among the new rules is one providing that there must be an actual aggregation or consolidation into one shipment of two or more lots as delivered to the forwarder. In this connection the evidence had shown that prior to their regulation, "the forwarders, quite generally, charged many receivers of minimum shipments, mostly the larger department stores, not on the basis of the 100-lb. minimum rate, but at the actual rate per 100 lb., without physically consolidating the respective small shipments."

Rails Can Handle More Traffic But Must Have Wherewithal

Although the railroads are now carrying a record traffic, they can handle more tonnage if called upon to do so, according to Roy B. White, president of the Baltimore & Ohio, in an address at a luncheon meeting of the Allegheny Regional Board at Pittsburgh, Pa., on September 22. "It may be necessary to readjust or eliminate certain kinds of service or make other changes, and we will need more men, materials and supplies," he continued, "but we will move the tonnage and the personnel necessary to win this war. We have it to do—there is no other way to move it and this war cannot be won unless the necessary transportation is furnished by the railroads. I know they will furnish it.

"We will continue to need help and lots of it—and we will continue to need it whether tonnage increases or not. You all know that our equipment is receiving harder usage than ever before and that it is wearing out faster. You also know that, as this heavy traffic moves throughout the country, rail is punished more than at any previous time in railroad history. We must continue to receive not only the material we have been receiving, but we must have more, and we must receive it when we need it and when and where we have men to use it.

"Every business man here is keenly aware of the manpower shortage that now exists and that it will probably grow worse. Director of War Mobilization Byrnes recently said that 150,000 additional workers must be found for the shipbuilding industry, and 100,000 for the airplane industry, on the West Coast alone, this winter. It is estimated that two million additional women should enter war industries within the next six months. I have no desire to question Mr. Byrnes or any other of the manpower authorities. I do wish to say, however, that unless manpower is furnished to the railroads when they need it and where they need it, little can be accomplished by the manpower elsewhere, as increased production is of no value unless the products can be moved.

"One factor heavily favoring the railroads is the mounting esteem accorded them on every hand. It is most helpful and encouraging. Except for some occasional criticism of passenger service, the public opinion polls give us a high rating on our war job. And this criticism is not strange when you realize that the rails are now hauling five times as many members of the armed forces in organized movements as they were during World War I, in addition to enormous numbers on leave and in the civilian category. People generally are aware of the extra loads we have taken on as they were deprived of other forms of transport, one after another, as a result of the war, and they have been most appreciative, considerate and tolerant. Almost every one now knows that without this country-wide transportation service of the railroads the war production job would have been scuttled and with it the winning of the war.

Railroad managers are not deluded that the railroads will now be able to coast along on past performance. On the contrary they are keenly aware of impending post-war problems. They know that their competition from all sources will be stronger and more aggressive than in the past, and they are not unmindful of the vast transportation plant that has already been constructed to meet war needs at public expense.

"If it is to be the public policy of the country to spend enormous sums of money to subsidize carriers by highway and air, there can be no valid reason why the railroads, our most highly regulated great industry, and one of the nation's largest taxpayers, should not be permitted to engage in both of these forms of transport. Today, no well informed person would question the ability of public authority to regulate and to govern, and in these circumstances how could the public interest suffer?

"It must be intended that our national transportation policy should be based upon equality of opportunity. If this is done I would have no fear for the future of the various transportation agencies of this country. The railroads now haul almost everything and as a rule haul it at a cost as low or lower than their competitors. With equality of opportunity each transportation agency could handle the share of the total traffic for which it is best adapted. That is just a plain business formula to which business men should be willing to subscribe. It is the basic element in the free play of private enterprise.

"In normally prosperous periods the railroads have been the largest buyers of capital goods and one of the heaviest buyers of supplies and materials. The post-war need of the railroads for modernizing and rehabilitating their plants will be enormous. And the deferred orders to supply these needs will be distributed to the industries and manufacturers, provided the earning power of the railroads has reasonable protection. This railroad program will be of the utmost importance in absorbing the demobilized members of both the armed forces and the war industries, and will help stabilize our whole economy, and its fulfillment can be best assured through equality of opportunity. No thinking American wants our country to face our post-war reconstruction with impoverished and depleted railroads."

Bright Future Seen for Planes and RRs

(*Continued from page 499*)

Office Department "and with comparatively little effect on railroad" revenue, since second, third and fourth class mail would still move by train. It contemplates that special mail planes would handle this traffic "with consequent reduction in the cost of handling" as compared with movement on passenger planes.

"Because of the relatively high costs," the booklet continues, "air cargo transportation in the near future will probably not be able to make any impression upon the freight traffic of surface carriers. In order to attract even some of the high class l.c.l. and perishable business, it would be necessary to get rates down to five cents or less per ton-mile for the complete service from the producer's door to the consumer's door. . . . Although air competition is not likely seriously to affect the revenues of surface media it may, to be sure, stimulate them in improving their service and efficiency."

Though the study suggests that the airlines will need to raise "substantial amounts" of capital to provide for the physical equipment of their lines and connecting feeder services, it contemplates federal aid in proportionate amounts, "largely along the lines of policy pursued in the past," but extended at least to the extent of including "federal zoning of areas adjacent to airports" and application of the "matched funds" procedure in the provision of airports, which heretofore has been largely a field for subsidy by the local community.

"In any event it seems clear that federal financing must play a larger role than in the past," the writer concludes, going on to say that "aviation is still a young industry, and public policy must consider whether considerable assistance will be needed in the immediate post-war period if the nation is to enjoy a rapid development of the industry along lines which technology will permit. The airway net must be greatly extended and coverage must be intensified; lighting equipment, radio ranges, weather services, and other aids to navigation in connection with these airways must be thoroughly modernized; technical research must be conducted on a more intensive scale than heretofore; and airport facilities for the domestic end of international routes must be provided. Because aviation in its

commercial aspects is predominantly an interstate and even an international business, these are logical responsibilities of the federal government."

Beyond such "assistance" in the provision of facilities, this study suggests that government aid in meeting operating costs also is a fair question of public policy. "Although airlines are beginning to show real signs of self support on some of the better developed domestic operations," it points out in this connection, "assistance in the form of mail pay or by some other method will probably continue to be essential for some years. And in encouraging feeders and extensions, improvements of service, and introducing new, large capacity experimental equipment, public support through direct subsidy of some form may be essential until greater maturity is achieved."

Reading Fined $1,000

The Interstate Commerce Commission announced on September 20 that it had received from the United States attorney at Philadelphia, Pa., advices that Federal Judge Kalodner had on September 15 imposed a fine of $1,000 on the Reading, following the latter's July 7 plea of nolo contendere "to an indictment charging it with failure to strictly observe certain tariff provisions in connection with the partial unloading of shipments at Philadelphia, in violation of section 1 of the Elkins Act."

"The indictment was brought after a field investigation had been conducted by the commission's Bureau of Inquiry," the I. C. C. announcement also said.

August Operating Revenues 15.7 Per Cent Above 1942

From preliminary reports of Class I roads representing 81.4 per cent of total operating revenues, the Association of American Railroads this week estimated that railroad operating revenues in August, were $644,155,518 compared with $556,569,323 in August 1942, an increase of 15.7 per cent.

Estimated August freight revenues were $474,936,359, compared with $435,695,638 in August, an increase of nine per cent. Estimated passenger revenues totaled $126,669,699 compared with $85,194,342, an increase of 48.7 per cent.

I. C. C. Service Orders

The Interstate Commerce Commission on September 16 set aside its Service Order No. 89, which was effective October 14, 1942, under which peddling of wine and juice grapes from refrigerator cars at terminal markets was prohibited. The vacating order was No. 89-A. Likewise effective September 15, a new Service Order, No. 153, established a prohibition of the same practice, and defined such "peddling" as the "unloading or removal from a refrigerator car of a lot or quantity of less than 100 containers of wine or juice grapes for transfer of either possession or title to either a wholesaler, retailer, or consumer."

Modification of the commission's Service Order No. 145, restricting the icing of refrigerator cars loaded with potatoes in Idaho or Oregon, was made effective September 22 by Amendment No. 2 to that order. It provided specific limitations on icing and reicing such cars, varying with their destination and with the locality where loaded.

Construction

SOUTHERN PACIFIC.—This road is constructing a bridge for a second track over the Santa Ana river east of the yard at Colton, Cal., a balloon track for turning equipment east of the river and is making other track rearrangements to improve operations at this point where helper engines are cut in on eastbound trains to negotiate Beaumont hill.

U. S. NAVY.—The Department of Yards and Docks has awarded a contract amounting to about $97,000 to A. D. Shader, San Francisco, Cal., for the construction of a railroad extension in California.

Abandonments

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Division 4 of the Interstate Commerce Commission has authorized this road and the Chicago, Terre Haute & Southeastern to abandon operation of and to abandon, respectively, a branch from Hawton, Ind., to Hymora, 4.34 miles.

DENVER & RIO GRANDE WESTERN.—This road has applied to the Interstate Commerce Commission for authority to abandon a 3.49-mile segment of its Tintic branch in the vicinity of Eureka, Utah, and to abandon operation of the 0.85-mile Mammoth Mill spur, connecting with that branch, which it owns jointly with the Union Pacific.

MIDLAND VALLEY.—This road has applied to the Interstate Commerce Commission for authority to abandon a branch from Hartford Junction, Ark., to Excelsior, 16.7 miles.

PACIFIC COAST.—This road has renewed its application for authority to abandon a line from Maple Valley, Wash., to Taylor, 8.7 miles, after having continued to operate it after Division 4 of the commission in 1942 had denied without prejudice a previous application.

ST. LOUIS-SAN FRANCISCO.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon a portion of a branch line from a point near Lepanto, Ark., to West Ridge, 6.49 miles.

SOUTHERN PACIFIC.—This company has applied to the Interstate Commerce Commission for authority to abandon operation of a 3.09-mile segment of line from San Bernardino, Calif., to a point in Colton, since service in this area is provided by its wholly-owned subsidiary, the Pacific Electric.

Equipment and Supplies

FREIGHT CARS

The NORTHERN PACIFIC is reported to be considering the purchase of 750 box cars of 50 tons' capacity.

The GRAND TRUNK WESTERN is inquiring for 300 high-side gondola cars of 70 tons' capacity.

The BETHLEHEM STEEL COMPANY has ordered 100 gondola cars of 50 tons' capacity from the company's own shops.

The ATLANTIC COAST LINE is reported to be in the market for 400 automobile cars of 50 tons' capacity.

The DELAWARE & HUDSON has ordered 100 all-steel gondola cars of 50 tons' capacity and 100 all-steel hopper cars of 50 tons' capacity from the Bethlehem Steel Company.

The NEW YORK, NEW HAVEN & HARTFORD is reported to have ordered 100 flat cars of 70 tons' capacity from the Greenville Steel Car Company. The authorization, by the United States district court at New Haven, Conn., for the purchase of these cars was reported in the *Railway Age* of August 28.

The CENTRAL OF NEW JERSEY has placed orders for 1,600 freight cars as follows: 1,000 composite gondola cars of 70 tons' capacity with the Bethlehem Steel Company and 500 composite hopper cars of 50 tons' capacity and 100 flat cars of 70 tons' capacity with the Pressed Steel Car Company. The inquiry for this equipment was reported in the *Railway Age* of September 11.

The MISSOURI PACIFIC LINES are inquiring for a total of 800 new freight cars including 500 hopper cars of 70 tons' capacity for the Missouri Pacific; 200 hopper cars of 70 tons' capacity for the New Orleans, Texas & Mexico; and 100 stock cars of 40 tons' capacity for the International-Great Northern. Federal court authorization for the purchase of these cars, at total estimated cost of $2,729,000, was received on September 21.

IRON AND STEEL

The MISSOURI PACIFIC has been authorized by the United States district court at St. Louis, Mo. to purchase 51,500 gross tons of 112-lb. rail and accessories at estimated cost of $3,960,665.

SIGNALING

THE UNION SWITCH & SIGNAL CO. is furnishing the American Locomotive Company 10 sets of three-indication cab signal equipment for installation on 10 Type 4-8-4 class S-3 locomotives which are being built for the Chicago, Milwaukee, St. Paul & Pacific. The equipment being furnished is similar to that now in service on the

News Department continued on next left-hand page

SPEED ALONE IS NOT ENOUGH—

Tonnage, too,

IS VITAL!

SPEED has been the keystone of America's wartime transportation job . . . but speed alone is not enough.

Coupled with the need for speed is the problem of moving an enormous volume of traffic.

Only the railroads—backbone of the Nation's commerce, in war and peace—could handle such a job.

The ability of the railroads to keep abreast of such unusual conditions depends upon the locomotive—modern locomotives, like Lima-built power which permits the hauling of heavy loads at high speed.

LIMA LOCOMOTIVE WORKS — LIMA LOCOMOTIVE WORKS INCORPORATED — INCORPORATED, LIMA, OHIO

Milwaukee in the territory between Portage, Wis., and Hastings, Minn.

THE ST. LOUIS-SOUTHWESTERN has placed orders with the Union Switch & Signal Co. for materials required to install automatic block signaling on 11 miles of single-track line between Van Duzer, Ark., and Camden, and between Fordyce, Ark., and Thorton. Involved are searchlight signals, relays and housings, and switch circuit controllers. The field installation will be carried out by the railway company's regular signal construction forces.

Supply Trade

Gwilym A. Price, president of the Peoples-Pittsburgh Trust Company, Pittsburgh, Pa., has been elected a vice president of the **Westinghouse Electric & Manufacturing Co.**

Ernest H. Weigman, vice-president in charge of sales of the **Grip Nut Company,** Chicago, has resigned to become a railway and industrial supply manufacturer's representative with offices at 310 South Michigan avenue, Chicago.

George M. Gillen, who has been in charge of advertising and sales promotion since 1935 for the **Lukens Steel Company** and its subsidiaries, the By-Products Steel Corporation and Lukenweld, Inc., has been appointed assistant manager of the combined sales of the Lukens Steel Company and subsidiaries. Prior to joining the Lukens organization in January, 1935, Mr. Gillen handled the advertising of the Lukens Steel Company and subsidiaries as an account executive with the G. M. Basford Company, of New York, with which he was associated for fourteen years.

B. F. Ilsley has been appointed assistant manager of sales at the newly-formed Oakland, Calif., works section of the **General Electric Company's** wire and cable division. He was formerly assistant to the manager of the wire and cable division. **J. S. Overstreet,** who has been in charge of wire and cable sales of the company's commercial cable division, has been appointed assistant manager of sales for the cable section at Schenectady, N. Y., and **J. J. Curtin,** of the wire and cable division at Fort Wayne, Ind., has been appointed assistant manager of sales for the magnet wire section in that city.

Lawrence B. Jackson has been appointed director of engineering, Diesel division, for the **American Locomotive Company.** Mr. Jackson was graduated from Stevens Institute of Technology. During his early career he was associated with the American Hawaiian Steam Ship Company as superintending engineer and with the Texas Steam Ship Company as plant engineer at the Bath, Me., shipyard and superintendent of the technical division, marine department. He joined Fairbanks Morse and Company in 1925 as engineer of marine applications and subsequently held the positions of assistant chief engineer and chief engineer of the Diesel division; manager of marine Diesel sales in Chicago and manager of the New England sales branch at Boston, Mass. He was appointed manager of engineering in 1936. Mr. Jackson has contributed to various technical journals on subjects relating to internal combustion engines, and is the inventor of an interlock hydraulic control for water gas manufacturing and an exhaust silencer.

Norman M. White, service manager at St. Louis, Mo., has been appointed district operating manager at Dallas, Tex., for the **Graybar Electric Company. J. R. Ernest,** assistant to the general service manager, has been appointed district operating manager at St. Louis, and will assume the duties formerly performed by Mr. White. Mr. White joined the Philadelphia, Pa., office of the Graybar Electric Company in 1922 as a stockman. He subsequently was appointed service supervisor at Baltimore, Md., in 1926, and service manager at St. Louis in 1940. Mr. Ernest joined the Graybar Company at Chicago in 1924. He was transferred to the company's headquarters as sales statistician in 1940, and later made assistant to the general service manager.

OBITUARY

John T. Luscombe, retired former sales manager of the United States Metallic Packing Company, died in Orlando, Fla., on September 13. He had been associated with the packing company from 1919 to 1938.

Sidney Y. Ball, president of the Ball Company and general time inspector of the Ball Railroad Time Service, whose death on September 10 was reported in the *Railway Age* of September 18, was born at Cleveland, Ohio on September 9, 1880, and was educated at Western Reserve University and Massachusetts Institute of Technology from which he was graduated

Sidney Y. Ball

in 1903. Upon graduation he entered the retail jewelry business conducted by his father and in 1905 was elected secretary of the Webb C. Ball Watch Company. He held this position until 1911 when he was made president. In 1913 he became president of the Ball Company and in 1922 he succeeded his father as executive head and general time inspector of the Ball Railroad Time Service.

Financial

ATLANTIC COAST LINE.—*New Director.*—Frank D. Lemmon has been elected a director of this road, with headquarters at New York, filling the vacancy caused by the death of H. L. Borden.

BALTIMORE & OHIO.—*Trackage Rights of Subsidiary.*—The Buffalo & Susquehanna has applied to the Interstate Commerce Commission for authority to operate under trackage rights over the Buffalo, Rochester & Pittsburgh's line from B. & S. Junction, Pa., to Du Bois, 5.41 miles, in lieu of its own line between these points, which it proposes to abandon. The B. & O. is lessee and operator of both roads.

BALTIMORE & OHIO.—*Merger of Subsidiaries.*—The Toledo & Cincinnati, which this road controls as beneficial owner of its capital stock and indebtedness, has applied to the Interstate Commerce Commission for authority to acquire by merger the properties of the Bowling Green, the Piqua & Troy Branch, and the Columbus, Findlay & Northern, all of which it controls by beneficial ownership of stock and indebtedness. The merged subsidiary companies would then be dissolved.

CHICAGO & EASTERN ILLINOIS.—*Dividends.*—Directors of the Chicago & Eastern Illinois on September 17 declared a dividend of one dollar per share on the company's five per cent class A stock, placing the company on record as having met full dividends obligations for the first time in its history. In announcing the action of the board of directors, C. T. O'Neal, president of the company, said it not only marked the first time in the history of the present company but the first time in 31 years that either this or predecessor companies have fully met dividend obligations. Today's declaration calls for payment of dividends on October 15, 1943, to holders of record on October 2, 1943. A similar dividend was declared last May 14.

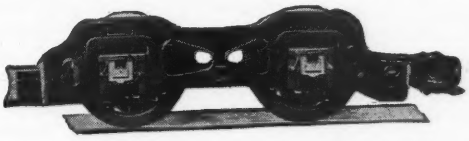
"When the present company, which was incorporated in June three years ago, declared its first dividend of fifty-nine cents per share on Class A stock last December, it was the first time since 1912 that a dividend of any amount had been declared," O'Neal said. "This year the board of directors hesitated until this time in declaring the full dividend on 1942 earnings because of the impossibility of predicting business trends which are influenced largely by the war."

DENVER & RIO GRANDE WESTERN.—*Reorganization Plan Approved.*—The United States district court at Denver, Colo., on September 15, approved the Interstate Commerce Commission's plan of reorganization for the Denver & Rio Grande Western providing for a capitalization of $155,173,127 as compared with the present capitalization of about $248,833,000. The court's action will not become final for 14 days to

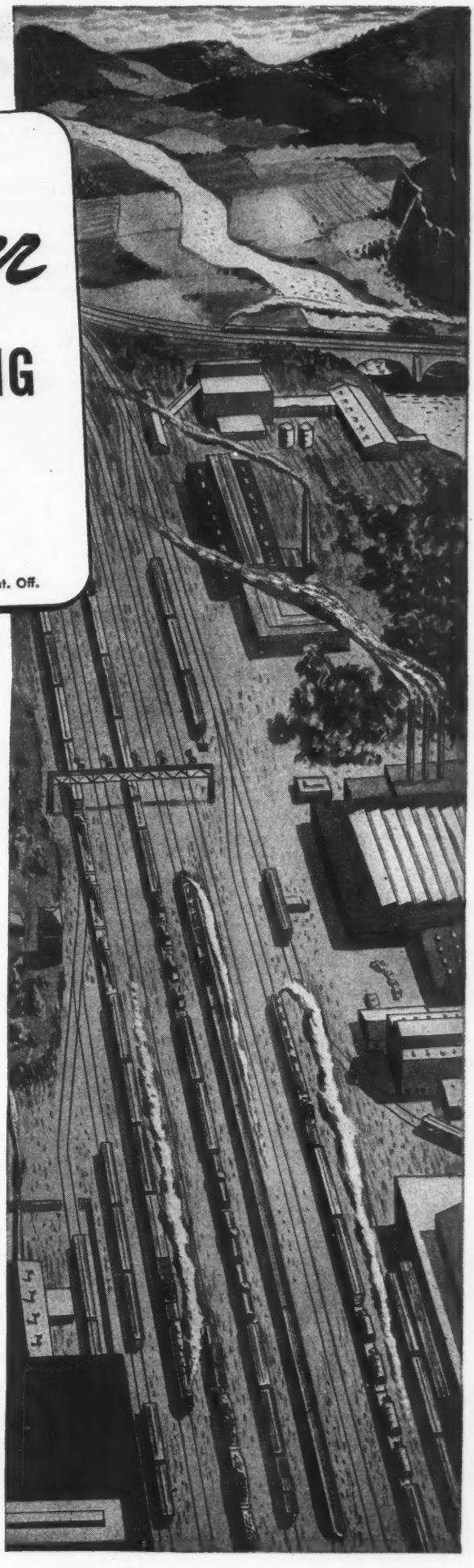
News Department continued on next left-hand page

Booster Power

KEEPS TRAFFIC MOVING



*Trademark Reg. U. S. Pat. Off.



The Booster* gets heavy trains in and out of sidings in half the time. Its added power gets you out of any tight spot.

Veteran engineers call the Locomotive Booster a friendly ally and bear witness to hundreds of instances where its extra power has speeded up wartime traffic.

The Locomotive Booster makes everything else more productive.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO

***In Canada:* FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL**

permit filing of briefs by those who objected to the plan during the hearings. The court also ordered the redemption of $2,000,000 of the guaranteed first mortgage 5 per cent bonds due in 1939 of the Rio Grande Junction. About $800,000 in interest had accrued on the bonds since 1935.

MAINE CENTRAL. — *Acquisition.* — This company has applied to the Interstate Commerce Commission for authority to purchase from treasury funds the capital stock of the Portland & Ogdensburg remaining in the hands of the public and to assume its indebtedness, and so to acquire the property and franchises of that company. Of 43,925 shares of the subsidiary's stock outstanding, the applicant now owns 37,400 shares. For the balance it proposes to pay $18.75 per share, a total of $823,600.

NEW YORK, SUSQUEHANNA & WESTERN. —*Improvements Authorized.*—The United States district court at Newark, N. J., on September 13, authorized trustees to expend $55,800 for improvements involving a new passenger station at Paterson, N. J., and the purchase of two locomotives, a telephone dispatching system and additional land.

SEABOARD AIR LINE.—*Redemption of Receivers' Certificates.*—On September 20, the United States district court at Norfolk, Va., set October 18 as the date for hearings on proposals filed with the court asking the redemption of $12,841,600 of receivers' certificates of the Seaboard Air Line.

WISCONSIN CENTRAL. — *Reorganization Plan Filed.*—A plan for reorganization of the Wisconsin Central was filed in the United States district court at Minneapolis, Minn., on September 16, by a committee representing holders of the road's first general mortgage 4 per cent bonds due in 1949. As of June 15, $6,312,000 of the $20,197,000 of these bonds outstanding had been deposited with the committee. The new capitalization of the railroad under the plan would consist of $10,098,500 of first mortgage bonds. $246,000 of Marshfield & South Eastern 4 per cent mortgage bonds of 1951; $13,128,050 of contingent interest bonds; $1,442,512 of equipment trust obligations; and 253,869 shares of no par value capital stock.

Average Prices Stocks and Bonds

	Sept. 21	Last week	Last year
Average price of 20 representative railway stocks..	37.65	36.53	27.99
Average price of 20 representative railway bonds..	79.69	78.21	68.03

Dividends Declared

New London Northern.—$1.75, quarterly, payable October 1 to holders of record September 15.

Newark & Bloomfield.—$1.50, semi-annually, payable October 1 to holders of record September 24.

Norwich & Worcester.—8 Per Cent Preferred, $2.00, quarterly, payable October 1 to holders September 15.

Savannah & Atlanta.—5 Per Cent Preferred, $1.25, quarterly, payable October 1 to holders of record September 15.

Vermont & Massachusetts.—$3.00, semi-annually, payable October 1 to holders of record September 23.

Virginian.—62½¢, quarterly, payable September 29 to holders of record September 23.

Railway Officers

EXECUTIVES

Frank D. Lemmon, assistant to vice-president and assistant secretary of the Atlantic Coast Line, has been elected vice-president and secretary, with headquarters as before at New York, succeeding **H. L. Borden,** whose death on August 5, was reported in the *Railway Age* of August 14.

W. E. Lamb, assistant general manager of the Gulf Coast Lines, and assistant general manager and superintendent of transportation of the International-Great Northern (Missouri Pacific), with headquarters at Palestine, Tex., has been promoted to executive general agent, with headquarters at Memphis, Tenn., and has also been elected president and a director of the Union Railway (Memphis Terminal company controlled by the Missouri Pacific), succeeding **Richard M. Dozier,** whose death on August 26 was reported in the *Railway Age* of September 4. **Leonard A. Gregory,** assistant general superintendent of the Gulf Coast Lines and the International-Great Northern, with headquarters at Houston, Tex., has been promoted to assistant general manager, with headquarters at Palestine, relieving Mr. Lamb. **E. W. Hargrave,** assistant to the general superintendent of transportation of the Missouri Pacific at St. Louis, Mo., has been advanced to assistant general superintendent at Houston, replacing Mr. Gregory, and **C. R. Pedigo** has been appointed assistant to the general superintendent of transportation at St. Louis, succeeding Mr. Hargrave.

W. E. Lamb

Mr. Lamb was born at Pelahatchie, Miss., on August 20, 1885, and entered railway service in May, 1900, with the Gulf & Ship Island, serving with this company; the Vicksburg, Shreveport & Pacific, the Louisiana & Arkansas and the Louisiana Railway & Navigation Company as clerk, agent, operator, dispatcher and chief dispatcher until July, 1906, when he entered the service of the Missouri Pacific as a dispatcher at McGehee, Ark. In the following year Mr. Lamb was transferred to Monroe, La., and in July, 1911, he returned to McGehee as chief dispatcher. In March, 1917, he was advanced to trainmaster and, after serving in this capacity at various points, he was promoted to superintendent on June 1, 1924, in which capacity he served successively at Van Buren, Ark., Monroe, La., Little Rock, Ark., and Falls City, Neb. On March 1, 1936, he was advanced to general superintendent of the Southern district with headquarters at Little Rock, and in August, 1942, he was promoted to the position he held at the time of his new appointment, effective September 16.

FINANCIAL, LEGAL AND ACCOUNTING

I. M. Craig, auditor miscellaneous accounts of the Atlantic Coast Line, has been promoted to assistant auditor passenger receipts, with headquarters as before at Wilmington, N. C., succeeding **J. N. Brand, Jr.,** who has resigned. **W. E. Jenkins** has been appointed auditor miscellaneous accounts at Wilmington, succeeding Mr. Craig.

Edward A. Jenney, assistant general claim agent of the Reading, Central of New Jersey, and the Pennsylvania-Reading Seashore Lines, at Philadelphia, Pa., has been appointed general claim agent of the Central of New Jersey and the New York & Long Branch, with headquarters at Jersey City, N. J. Mr. Jenney entered the service of the Central of New Jersey on May 1, 1910, as a clerk in the claim department at Jersey City, and was appointed special agent on November 1, 1913. On January 1, 1916, he was appointed claim agent, in which capacity he served until August 16, 1918, when he was temporarily appointed to the position of demurrage adjuster in the general agent's office at Newark, N. J. He returned to his former position in the claim department on March 16, 1919, and continuing in that capacity until September 1, 1938, when he was appointed special claim agent. On July 16, 194

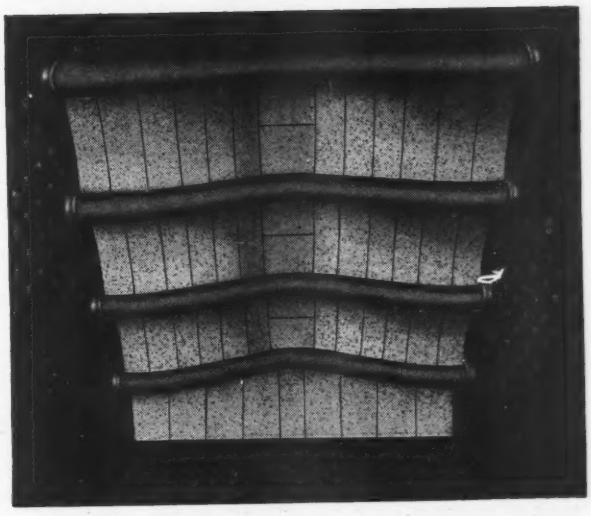
Edward A. Jenney

News Department continued on next left-hand page

COAL CONSERVATION HAS A NEW IMPORTANCE

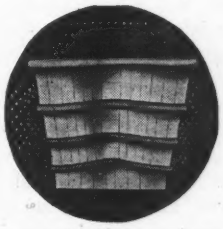
When you burn a ton of coal today you are burning the man-hours used in mining, transporting and handling it. Man-hours that are needed in the war effort.

So today coal conservation takes on a new importance. One way of furthering it is to be sure that every locomotive leaving the roundhouse has a *complete* arch in its firebox.



HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

Mr. Jenney was appointed assistant general claim agent of the Reading, Central of New Jersey, and the Pennsylvania-Reading Seashore Lines at Philadelphia, the position he held at the time of his recent appointment as general claim agent.

James E. Quinn, whose appointment as auditor of disbursements of the Florida East Coast, with headquarters at St. Augustine, Fla., was announced in the *Railway Age* of September 11, was born on September 6, 1886, at Jefferson, Tex. Mr. Quinn entered railroad service on September 1, 1904, as clerk of miscellaneous accounts in the accounting department of the St. Louis Southwestern of Texas, subsequently serving successively as fuel clerk, and in the bridge and building department as timekeeper and voucher clerk. In 1909 he left the employ of that road to become chief clerk to the general foreman of bridges, buildings, water, and signal service of the Eastern of New Mexico and the Pecos & Northern Texas (now part of Atchison, Topeka & Santa Fe), with headquarters at Amarillo, Tex. He returned to the St. Louis Southwestern of Texas as clerk of freight accounts and inventory clerk on January 1, 1911. In May, 1911, Mr. Quinn became maintenance of way accountant of the San Antonio & Aransas Pass (now Texas & New Orleans), serving in that capacity until December 1, 1911, when he again returned to the employ of St. Louis Southwestern of Texas, serving as clerk of passenger accounts and contract clerk. On December 1, 1912, he reentered the service of the San Antonio & Aransas Pass as first clerk in the department of accounts. He subsequently served successively as chief clerk of disbursement and general accounts and special accountant. On August 1, 1919, Mr. Quinn became associated with the United States Railroad Administration as field accountant, with headquarters at Washington, D. C., serving in that position until July 1, 1925, when he entered the service of the Florida East Coast as chief clerk of disbursements. On January 1, 1941 he was appointed assistant auditor (disbursements), the position he held at the time of his recent appointment as auditor of disbursements.

James E. Quinn

OPERATING

George A. Robinson, road foreman of engines, Kanawha sub-division, of the Chesapeake & Ohio, has been appointed assistant general safety agent, with headquarters at Richmond, Va.

A. Malmgren, road foreman of equipment of the St. Louis-San Francisco at Springfield, Mo., has been promoted to assistant superintendent of the Southern division, with headquarters at Thayer, Mo.

J. J. Thompson, mechanical assistant to the president of the Tennessee Central, has been promoted to assistant general manager, with headquarters as before at Nashville, Tenn. **J. T. Waddell,** superintendent, has been advanced to general superintendent, with headquarters as before at Nashville.

William R. Olive, whose appointment as general superintendent transportation of the Seaboard Air Line, with headquarters at Norfolk, Va., was announced in the *Railway Age* of September 18, entered the service of the Seaboard Air Line in 1909 as a telegraph operator. He has since served successively as dispatcher, chief dispatcher, trainmaster, superintendent of the North Carolina division, with headquarters at Hamlet, N. C., and later of the Virginia division at Raleigh, N. C. Mr. Olive was serving as assistant to general manager at Norfolk at the time of his recent appointment as general superintendent transportation. In his new position he will have jurisdiction over transportation matters for the entire system, including the scheduling of trains, distribution of cars and locomotives, and related matters.

TRAFFIC

S. A. Stubbs has been appointed general freight agent of the Rio Grande Southern, with headquarters at Durango, Colo.

Paul L. Getchell, city passenger agent of the Colorado & Southern, has been promoted to general agent, with headquarters as before at Colorado Springs, Colo., succeeding **R. T. Fox,** who has resigned after 36 years service.

C. P. Mabie, district freight representative of the Baltimore & Ohio at Memphis, Tenn., has been promoted to division freight agent, with headquarters at Indianapolis, Ind., succeeding **H. S. Smith,** whose transfer to Dayton, Ohio, was announced in the *Railway Age* of September 18.

Charles E. Barry, manager of the foreign freight department of the Chicago, Rock Island & Pacific, has been promoted to assistant freight traffic manager in charge of import and export traffic, with headquarters as before at Chicago, a newly-created position. Mr. Barry was born at Muskegon, Mich., and attended Loyola University and Lewis Institute in Chicago. For a number of years he was in charge of the freight traffic departments of various steamship companies, including the United American Steamship Lines, the Caldwell Shipping Company, and the American Hawaiian Steamship Company, with headquarters at Chicago. Mr. Barry entered railway service in 1941 as manager of the Rock Island's foreign freight department, the position he held at the time of his new appointment, effective September 16.

Charles E. Barry

Charles A. Skog, general freight agent of the Grand Trunk Western at Detroit, Mich., has been promoted to freight traffic manager, with headquarters at Chicago, succeeding **E. F. Flinn,** whose retirement was reported in the *Railway Age* of September 18. **Don M. Crawford,** assistant general freight agent, has been advanced to general freight agent, with headquarters as before at Detroit, succeeding Mr. Skog, and **G. O. Thoresen,** general agent at St. Louis, Mo., has been promoted to assistant general freight agent at Detroit, replacing Mr. Crawford.

Charles A. Skog

Mr. Skog was born at Badger Mills, Wis., on September 6, 1886, and entered railway service in 1906 as a telegrapher of the Minneapolis, St. Paul & Sault Ste. Marie. In 1908 he became a ticket clerk of the Northern Pacific at St. Paul, Minn., and in 1910 he returned to the Soo Line

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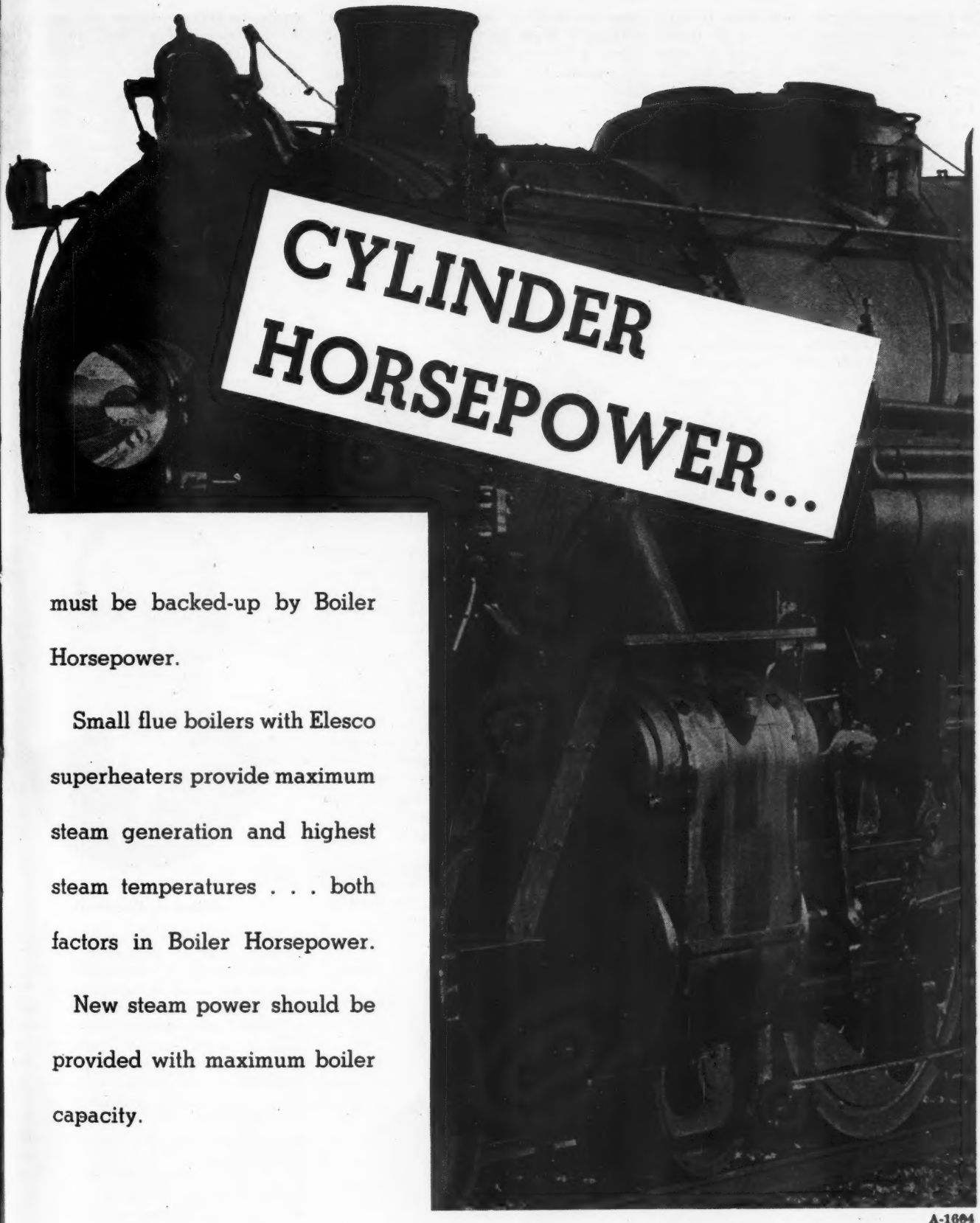


must be backed-up by Boiler Horsepower.

Small flue boilers with Elesco superheaters provide maximum steam generation and highest steam temperatures . . . both factors in Boiler Horsepower.

New steam power should be provided with maximum boiler capacity.

A-1604

The SUPERHEATER Company

SUPERHEATERS • • FEEDWATER HEATERS
AMERICAN THROTTLES • • STEAM DRYERS
EXHAUST STEAM INJECTORS • PYROMETERS

ELESCO

Representative of AMERICAN THROTTLE COMPANY, INC.
60 East 42nd St., New York • 122 S. Michigan Ave., CHICAGO
Montreal, Canada: THE SUPERHEATER COMPANY, LTD.

as a telegrapher at the same point. In 1912 he was promoted to chief clerk of the traffic department, and in the same year he went with the Canadian Northern (now part of the Canadian National), subsequently serving as a clerk at Winnipeg, Man., and Duluth, Minn. In 1916 Mr. Skog was advanced to general agent at Minneapolis, Minn., and one year later he was promoted to division freight and passenger agent, with headquarters at Duluth. In 1927 he became assistant general freight agent of the Grand Trunk Western at Chicago, and on May 15, 1929, he was transferred to Detroit, Mich. On January 1, 1930, he was promoted to the position he held at the time of his new appointment.

John H. Andrews, whose appointment as assistant freight traffic manager of the Southern at Raleigh, N. C., was announced in the *Railway Age* of September 4, was born on March 9, 1876, at Raleigh, N. C., and was graduated from the University of North Carolina in 1897. Mr. Andrews entered railroad service on June 9, 1897, as office boy for the Southern at Raleigh,

John H. Andrews

later serving successively at that point as file clerk, stenographer and rate clerk. On July 1, 1904, he became traveling freight agent at Greensboro, N. C., subsequently becoming commercial agent at Raleigh, and division freight agent, with the same headquarters, on November 15, 1912. Mr. Andrews was appointed assistant general freight agent at Mobile, Ala., on August 1, 1916, and during the period of governmental control of railroads, he served as division freight agent of the Southern at Mobile, being transferred to Greensboro, N. C., on November 17, 1918, and to Raleigh on March 1, 1920. Mr. Andrews served in the latter position until his recent appointment as assistant freight traffic manager.

Charles Crofford Elder, whose appointment as assistant freight traffic manager of the Southern at Greensboro, N. C., was announced in the *Railway Age* of September 4, was born on November 13, 1885. Mr. Elder entered railroad service on March 15, 1898, as messenger and stenographer of the Illinois Central at Atlanta, Ga. On April 1, 1903, he went with the Atlanta & West Point as stenographer and clerk in the office of the commercial agent at Atlanta, Ga., remaining with that road until February 1, 1905, when he became

Charles Crofford Elder

chief clerk to the commercial agent of the Southern at Jacksonville, Fla. He became clerk in the office of the commercial agent at Atlanta on April 1 of the same year. Mr. Elder was appointed traveling freight agent at Atlanta on October 1, 1907, and on February 1, 1910, he became commercial agent at Charlotte, N. C., where he remained until July 18, 1918, then becoming district freight agent at Savannah, Ga. Mr. Elder was appointed division freight agent at Columbia, S. C., on December 15, 1920, and on November 15, 1922, he was transferred to Greensboro, remaining in that capacity until his recent appointment as assistant freight traffic manager.

Raymond E. Hibbard, whose promotion to assistant to the chief traffic officer of the Chicago, Milwaukee, St. Paul &

Raymond E. Hibbard

Pacific, with headquarters at Chicago, was reported in the *Railway Age* of September 18, was born at Marquette, Iowa, on July 6, 1899, and entered railway service in September, 1918, as a ticket clerk of the Milwaukee at Dubuque, Iowa. In April, 1921, he was promoted to chief clerk of the division freight and passenger agent, with the same headquarters, and in September, 1922, he was transferred to Chicago. In July, 1935, Mr. Hibbard was advanced to chief clerk of the chief traffic officer at Chicago, holding that position until his new appointment, effective September 16.

A. G. Hilker, assistant to the general passenger agent of the Union Pacific, has been promoted to assistant general passenger agent in charge of rates and tariffs, with headquarters as before at Omaha, Neb. **L. G. Meder,** general agent, passenger department, has been advanced to assistant to the general passenger traffic manager, with headquarters as before at Omaha, and **Walter Conrey,** city passenger agent at Omaha, has been promoted to general agent, with the same headquarters, succeeding Mr. Meder.

Elmer A. Schofield, whose promotion to the position of general freight agent of the Baltimore & Ohio, with headquarters

Elmer A. Schofield

at Cincinnati, Ohio, was announced in the *Railway Age* of September 18, entered railroad service in September, 1910, as clerk in the offices of the Cincinnati, Hamilton & Dayton (now part of the Baltimore & Ohio). He advanced through various positions in the general freight traffic department and was appointed freight representative in November, 1921, being promoted to assistant commercial agent in February, 1930, and commercial agent in March, 1932. Mr. Schofield was appointed assistant general freight agent, with headquarters at Cincinnati in January, 1937, and remained in that capacity until the time of his recent promotion to general freight agent.

ENGINEERING & SIGNALING

W. N. Rice, track supervisor of the Illinois Central, has been promoted to assistant engineer of the Iowa division, west of Waterloo, Iowa, with headquarters as before at Waterloo. **J. H. Davis,** formerly assistant engineer of the entire Iowa division, continues as assistant engineer of

News Department continued on next left-hand page

After the last war—returning troops march up New York's Fifth Avenue

When do you want victory, America?

WAR is no sport of the gods, to be finished when they tire of its bloody game.

War is a chore of the people—to be fought by them, paid by them, won by them.

This war is our war—every one of us.

The longer it lasts, the more it will cost us—in friends and neighbors and loved ones wounded and killed, in personal inconveniences, in taxes, in a harder life for ourselves and our children.

We—and we alone, and that means *all* of us—are responsible for the length of time this war will last. The more we put into it now, the sooner it can be brought to a victorious end.

That means sparing no effort, no time, no money that can be put in the field against the enemy *now*.

In particular, it means buying War Bonds literally till it hurts—buying them not just to be able to say, "I have done my bit," but buying them to be able to say, "I have done my *best*."

The Second War Loan Drive was over-subscribed—but not by "we, the people." We, the people, bought only a minor share of all bonds sold. The major share was bought by banks and business institutions.

This Third War Loan Drive is ours—ours as individuals. It's up to us to put it across.

Not just because it's still another opportunity for a wonderful financial investment—for a chance to put our money where it's absolutely safe, where we can't lose it, where it will return us four dollars for every three in only ten years' time...

But because it's an opportunity to help shorten the war by overwhelming the enemy with an avalanche of guns, ships, planes, tanks, shells and everything else that is needed for invasion *now*.

Isn't this worth putting *everything you can* into the fight—*now?*

Contributed to the Third War Loan Drive by

The American Locomotive Company

NEW YORK, N.Y.

the Iowa division, east of Waterloo. In the *Railway Age* of September 18 these men were incorrectly reported as being appointed division engineers in their respective territories.

James C. Ryan, supervisor of welding of the New York Central system, with headquarters at Cleveland, Ohio, has been promoted to supervisor of maintenance equipment, Lines West of Buffalo, with headquarters at Chicago, a newly-created position.

William R. Rees, division engineer of the Atchison, Topeka & Santa Fe at Emporia, Kan., has been promoted to district engineer of the Northern district, with headquarters at La Junta, Colo., succeeding **J. W. Walter,** who has been transferred to the Southern district, with headquarters at Amarillo, Tex., replacing **J. A. Noble,** whose promotion to chief engineer of the Western lines was reported in the *Railway Age* of September 4.

G. S. Goodwin, mechanical engineer of the Chicago, Rock Island & Pacific, has retired, effective September 20. He graduated in mechanical engineering from Cornell University in 1899 and entered railway service as a special apprentice of the Chicago, Milwaukee, St. Paul & Pacific at Milwaukee, Wis. In May, 1904, he went with the Great Northern as leading locomotive draftsman. In January, 1906, he became chief draftsman of the Rock Island, and four years later he was advanced to assistant mechanical engineer, becoming mechanical engineer of locomotives in June, 1913, corporate engineer in October, 1918, and mechanical engineer, locomotives and cars, in February, 1921. He held this position until May, 1927, when he was appointed assistant superintendent of motive power. Mr. Goodwin resumed the title of mechanical engineer in 1932, which position he held until June, 1943, when he was appointed engineer of car construction. Mr. Goodwin has been active in the work of the A. A. R., Mechanical division, having been a member of the Car Construction committee for more than 20 years. He also served as chairman of the Tank Car Committee for a number of years, during which the question of autogenous welding of tank cars was active and it was through the efforts of the Tank Car committee that approval of the Interstate Commerce Commission was finally secured for such construction. He also served as president of the Western Railway Club in 1919-20.

William S. McFetridge, principal assistant engineer of the Bessemer & Lake Erie, has been appointed consulting engineer, with headquarters as before at Greenville, Pa. **J. W. Hopkins,** track supervisor at Greenville, has been advanced to principal assistant engineer, with the same headquarters, succeeding Mr. McFetridge.

Mr. McFetridge was born at Oil City, Pa., on September 10, 1873, and attended Lafayette College, Easton, Pa. He entered railway service in June, 1892, as a clerk of the car service department of the Pittsburgh, Shenango & Lake Erie (now the B. & L. E.), later serving as assistant engineer, with headquarters at Greenville. He subsequently served as assistant engineer of the Pittsburgh & Conneaut Dock Company, chief engineer and superintendent of the Parral & Durango in Mexico, assistant chief engineer of the Little Kanawa Syndicate Lines, with headquarters at Parkersburg, W. Va., locating engineer of the Western Allegheny at New Castle, Pa., chief engineer and treasurer of the Dome Lake Reservoir Company, Sheridan, Wyo., engineer of construction of the Northern Maine Seaport (now the Bangor & Aroostook), LaGrange, Me., and engineer of the Conneaut Lake Park Company, Exposition Park, Pa. In October, 1909, Mr. McFetridge returned to the B. & L. E., as assistant engineer at Greenville, and was promoted to valuation engineer in 1913. Four years later he was advanced to the position he held at the time of his new appointment.

Mr. Hopkins was born on November 13, 1903, and graduated from Pennsylvania State College. He entered railway service with the B. & L. E. in November, 1936, as a designing engineer, with headquarters at Greenville and in June, 1939, he was appointed to the position he held at the time of his new promotion.

SPECIAL

Dr. B. I. Derauf, assistant chief surgeon of the Northern Pacific Lines East of Mandan, N. D., has been promoted to chief surgeon, with headquarters as before at St. Paul, Minn., succeeding **Dr. A. W. Ide,** who has retired.

Harry W. Frier, manager of the advertising department of the Chicago & North Western, has been promoted to the newly created position of director of public relations, with headquarters as before at Chicago. **Francis V. Koval,** formerly associated with Howard G. Mayer, public relations counselor, has been appointed publicity manager of the North Western.

Harry W. Frier

Mr. Frier was born at Benton, Ill., on February 1, 1906, and is a graduate of the University of Illinois. He entered railway service in 1930 as assistant advertising manager of the North Western, and later went with the General Outdoor Advertising Company and the McCutcheon-Gerson Service, Chicago. In 1936 Mr. Frier became associated with the DeSoto division of the Chrysler Corporation, Detroit, Mich., and in September, 1940, he returned to the

Francis V. Koval

North Western as manager of its advertising department, holding that position until his new appointment, effective September 15.

Mr. Koval was born at Boonton, N. J., on February 11, 1909, and was graduated from the University of Illinois in 1933. In 1935 he became a reporter for the Transradio Press Service, with headquarters at Chicago, and one year later he was promoted to bureau manager for that service at New Orleans, La. Late in 1936 Mr. Koval went with the Howard G. Mayer organization, public relations counselors, Chicago, where he served as manager until 1942, and in 1943 as an associate, remaining in the latter position until his new appointment, effective September 1.

OBITUARY

James Erskine, special engineer in charge of flood control of the Chicago, Rock Island & Pacific, with headquarters at Chicago, died in Kansas City, Mo., on September 2 while on an inspection trip.

T. W. Preston, assistant general freight agent of the Pennsylvania, with headquarters at Philadelphia, Pa., died on September 21 at Philadelphia. He was 53 years old.

T. Herbert Fee, assistant freight traffic manager of the Western Maryland, with headquarters at Baltimore, Md., died of a heart attack on September 20 while en route to New York. He was born on March 7, 1875, at Baltimore. Mr. Fee began his railroad career with the Western Maryland as a messenger on June 11, 1891, thereafter holding various positions, including that of chief clerk in the freight department, until April 1, 1905, when he was promoted to division freight agent at Hanover, Pa. On December 1, 1905, he returned to Baltimore as freight tariff agent, holding that position until March 1, 1916, when he was promoted to assistant general freight agent. On December 3, 1930, Mr.

News Department continued on next left-hand page

Maintenance HELPERS
WABCOTITE Fittings
Air-Tight Non-Breakable Joints
These fittings, now standard on all modern air brake devices, securely clamp pipes at their strongest section to relieve all strain from threaded connections. Among the thousands in continuous service for many years, none has been known to break, leak, or require maintenance In addition to attachments for valve devices, they are available as separate pipe fittings — tees, elbows, flanges, unions, etc., for many types and sizes of pipe joints . . . Applied to every possible pipe connection in the air brake system when cars and locomotives go through the shop for reconditioning, they will contribute to reliable brake performance and reduce maintenance requirements . . . The same advantages realized from WABCOTITE Fittings in air brake equipments can also be made available for other piping systems. » » » »
WESTINGHOUSE AIR BRAKE CO.
WILMERDING, PENNSYLVANIA

Fee was appointed assistant freight traffic manager, the position he was holding at the time of his death.

C. Gordon Pennington, general passenger agent of the Pennsylvania, New York Zone, and the Long Island at New York, whose death on September 15 at Montauk, L. I., was reported in the *Railway Age* of September 18, was born on December 28, 1885, at New York. Mr. Pennington entered the employ of the Long Island on July 1, 1900, as a clerk in the office of the traffic manager. On June 1, 1904, he was promoted to stenographer and clerk to advertising and special agent, remaining in that position until April 1, 1908, when he was appointed advertising clerk, with the additional duties of assistant office ticket agent and relief agent at New York ticket agencies. On April 1, 1918, Mr. Pennington was advanced to timetable compiler and during World War I he served as outside representative of the general passenger department, accompanying troop train movements to camps in the Long Island area. In 1920 Mr. Pennington was advanced to special agent, passenger department, and in 1922 was appointed assistant general passenger agent, becoming assistant general passenger agent of the Pennsylvania at New York in 1928. In 1929 he was promoted to general passenger agent at Chicago, being transferred to Washington, D. C., in 1939, and becoming general passenger agent of the Pennsylvania's New York Zone, including the Long Island in 1941, the position he was maintaining at the time of his death.

Operating Revenues and Operating Expenses of Class I Steam Railways

FOR THE MONTH OF JULY, 1943 AND 1942

Item	United States		Eastern District		Southern District		Western District	
	1943	1942	1943	1942	1943	1942	1943	1942
Miles of road operated at close of month	229,430	231,046	56,434	56,887	43,422	43,754	129,574	130,405
Revenues:								
Freight	$582,496,616	$533,085,991	$226,105,464	$211,261,616	$105,627,782	$99,422,386	$250,763,370	$222,401,989
Passenger	156,628,280	91,939,231	66,447,977	43,701,714	29,875,496	17,046,835	60,304,807	31,190,682
Mail	9,645,239	8,550,333	3,350,994	3,103,824	1,761,872	1,539,299	4,532,373	3,907,210
Express	9,765,224	6,406,639	2,977,060	2,154,415	1,002,228	897,078	5,785,936	3,355,146
All other operating revenues	32,660,611	25,199,346	14,185,727	11,606,255	3,993,715	3,101,261	14,481,169	10,491,830
Railway operating revenues	791,195,970	665,181,540	313,067,222	271,827,824	142,261,093	122,006,859	335,867,655	271,346,857
Expenses:								
Maintenance of way and structures	93,636,943	73,487,147	35,700,077	29,600,900	15,457,653	11,860,206	42,479,213	32,026,041
Maintenance of equipment	19,502,631	100,951,390	48,992,898	44,047,611	21,961,556	19,773,095	48,548,177	37,130,684
Traffic	10,549,751	9,786,142	3,831,160	3,551,765	2,083,778	1,882,389	4,634,813	4,351,988
Transportation—Rail line	218,938,832	186,676,966	96,395,834	84,481,148	36,834,123	31,570,762	85,708,875	70,625,056
Transportation—Water line	1,955	d 2,253	.....	.....	.....	.....	1,955	d 2,253
Miscellaneous operations	8,982,361	6,308,300	3,230,544	2,551,989	1,383,862	947,441	4,367,955	2,808,870
General	15,045,513	13,269,255	6,087,898	5,409,740	3,035,278	2,490,519	5,922,337	5,368,996
Railway operating expenses	†466,657,986	390,476,947	194,238,411	169,643,153	80,756,250	68,524,412	191,663,325	152,309,382
Net revenue from railway operations	324,537,984	274,704,593	118,828,811	102,184,671	61,504,843	53,482,447	144,204,330	119,037,475
Railway tax accruals	187,011,786	125,214,536	65,912,379	44,471,094	39,561,843	31,303,398	81,537,564	49,440,044
Railway operating income	137,526,198	149,490,057	52,916,432	57,713,577	21,943,000	22,179,049	62,666,766	69,597,431
Equipment rents—Dr. balance	13,624,945	12,593,505	5,423,076	6,064,478	768,196	669,489	7,433,673	5,859,538
Joint facility rent—Dr. balance	3,290,048	3,271,317	1,654,788	1,743,946	421,541	355,175	1,213,719	1,172,196
Net railway operating income	120,611,205	133,625,235	45,838,568	49,905,153	20,753,263	21,154,385	54,019,374	62,565,697
Ratio of expenses to revenues (per cent)	59.0	58.7	62.0	62.4	56.8	56.2	57.1	56.1
Depreciation—Way and structures	8,761,473	3,037,832	3,756,108	1,293,910	1,471,172	490,544	3,534,193	1,253,378
Deferred maintenance — Way and structures	d 85,274	80,361	d 17,003	33,361	d 34,885	.....	d 33,386	47,000
Amortization of Defense projects—Roads	887,160	391,839	336,571	111,388	145,041	51,927	405,548	228,524
Depreciation—Equipment	16,795,516	17,674,751	7,528,489	7,698,009	3,599,185	3,476,784	5,667,842	6,499,958
Amortization of Defense projects—Equipment	14,038,208	7,016,380	3,443,500	2,245,865	2,387,109	1,984,990	8,207,599	2,785,525
Deferred maintenance—Equipment	d 80,239	.....	5,334	.....	d 7,940	.....	d 77,633	.....
Major repairs—Equipment	150,000	.....	.....	.....	.....	.....	150,000	.....
Payroll taxes	17,336,626	14,649,938	7,289,294	6,360,239	2,976,661	2,556,459	7,070,671	5,733,240
Federal income taxes*	142,235,460	87,308,488	46,387,534	27,710,692	31,502,378	24,202,566	64,345,548	35,395,230
All other taxes	27,439,700	23,256,110	12,235,551	10,400,163	5,082,804	4,544,373	10,121,345	8,311,574

FOR SEVEN MONTHS ENDED WITH JULY, 1943 AND 1942

Item								
Miles of road operated at close of month	229,468	231,437	56,485	56,906	43,449	43,854	129,534	130,677
Revenues:								
Freight	$3,888,359,077	$3,206,247,605	$1,528,183,760	$1,329,652,700	$756,793,783	$633,696,851	$1,603,381,534	$1,242,898,054
Passenger	905,815,180	484,217,832	365,504,808	232,683,399	188,326,471	92,441,340	351,983,901	159,093,093
Mail	68,430,605	61,155,376	24,026,866	22,296,085	12,338,221	10,951,077	32,065,518	27,908,214
Express	72,053,593	47,475,871	24,612,151	16,651,820	11,188,887	8,022,309	36,252,555	22,801,742
All other operating revenues	203,195,058	146,843,883	90,004,886	69,519,827	26,982,084	19,060,376	86,208,088	58,263,680
Railway operating revenues	5,137,853,513	3,945,940,567	2,032,332,471	1,670,803,831	995,629,446	764,171,953	2,109,891,596	1,510,964,783
Expenses:								
Maintenance of way and structures	582,616,549	423,474,146	223,281,346	170,934,002	103,990,796	74,698,446	255,344,407	177,841,698
Maintenance of equipment	791,850,501	683,199,843	339,034,306	308,307,489	148,699,361	130,602,111	303,916,834	244,290,243
Traffic	72,109,978	67,956,014	26,376,330	24,634,292	13,951,878	13,463,021	31,781,770	29,858,701
Transportation—Rail line	1,489,685,154	1,244,684,576	672,471,485	571,109,979	254,969,280	212,445,456	562,244,389	461,129,141
Transportation—Water line	12,154	20,567	.....	.....	.....	.....	12,154	20,567
Miscellaneous operations	58,714,110	38,047,542	21,212,055	15,524,513	9,584,022	6,209,004	27,918,033	16,314,025
General	102,228,950	90,356,700	41,523,718	36,357,728	20,247,821	17,351,338	40,457,411	36,647,634
Railway operating expenses	‡3,097,217,396	2,547,739,388	1,323,899,240	1,126,868,003	551,643,158	454,769,376	1,221,674,998	966,102,009
Net revenue from railway operations	2,040,636,117	1,398,201,179	708,433,231	543,935,828	443,986,288	309,402,577	888,216,598	544,862,774
Railway tax accruals	1,104,895,090	613,498,234	371,126,152	241,842,373	266,522,508	159,104,166	467,246,430	212,551,695
Railway operating income	935,741,027	784,702,945	337,307,079	302,093,455	177,463,780	150,298,411	420,970,168	332,311,079
Equipment rents—Dr. balance	88,489,540	77,611,966	36,347,246	38,497,243	7,217,591	4,718,074	44,924,703	34,396,649
Joint facility rent—Dr. balance	23,732,414	21,781,912	11,952,116	11,631,141	2,879,048	2,384,806	8,901,250	7,765,965
Net railway operating income	823,519,073	685,309,067	289,007,717	251,965,071	167,367,141	143,195,531	367,144,215	290,148,465
Ratio of expenses to revenues (per cent)	60.3	64.6	65.1	67.4	55.4	59.5	57.9	63.9
Depreciation—Way and structures	61,626,515	17,415,188	26,516,677	10,222,316	10,301,343	3,431,159	24,808,495	3,761,713
Deferred maintenance — Way and structures	d 487,964	80,361	d 173,578	33,361	d 34,885	.....	d 279,501	47,000
Amortization of Defense projects—Roads	5,192,542	1,822,591	1,698,941	474,487	938,258	235,518	2,555,343	1,112,586
Depreciation—Equipment	122,402,216	120,177,332	51,989,751	51,247,234	25,085,673	24,404,397	45,326,792	44,525,701
Amortization of Defense projects—Equipment	72,676,991	39,217,296	25,459,631	13,068,891	17,045,228	10,422,566	30,172,132	15,725,839
Deferred maintenance—Equipment	d 378,574	.....	5,334	.....	d 42,049	.....	d 341,859	.....
Major repairs—Equipment	1,000,000	.....	.....	.....	.....	.....	1,000,000	.....
Payroll taxes	114,644,502	95,780,574	48,883,582	42,188,582	20,172,563	16,969,478	45,588,357	36,622,514
Federal income taxes*	811,750,739	366,360,550	243,336,114	133,007,471	211,369,166	112,313,831	357,045,459	121,039,248
All other taxes	178,499,849	151,357,110	78,906,456	66,646,320	34,980,779	29,820,857	64,612,614	54,889,933

* Includes income tax, surtax, and excess-profits tax.
d Decrease, deficit, or other reverse items.
† Includes $5,092,262 accrued in anticipation of major wage awards.
‡ Includes $43,224,311 accrued in anticipation of major wage awards.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.
(Switching and Terminal Companies not included.)

Be sure they're good . . . they'll have to last a while

With shoes rationed, it's more than ever the part of wisdom when you buy a pair to select the best obtainable, that will give you the longest service.

The same applies to the purchase of car wheels. With the available supply subject to allocation, it is important that when you do buy wheels you select those that will give you maximum mileage, with less chance of failures and fewer future replacements.

For years Bethlehem has been making a superior wrought-steel, heat-treated wheel. Modern, precision equipment is used. The latest methods are employed, especially in heat-treatment, many of the techniques being exclusive with Bethlehem. Furthermore, minute, critical inspection is made of each wheel throughout its manufacture.

Let us show you detailed service records, and explain more fully what you gain in mileage and performance when you specify Bethlehem Wrought Steel, Heat-Treated Wheels and Forged Steel Axles to handle your wartime traffic.

Lowering a Bethlehem Wrought Steel Wheel into the cooling pit of a heat-treating unit. The special heat-treatment that they receive is one of the principal reasons why Bethlehem Wrought Steel Wheels give such long service.

BETHLEHEM STEEL

"Share the Steel" Campaign Launched by W.P.B.

Will Try for Reduction of Inventories and Elimination of Duplicate Stocks

The cooperation of all manufacturers using steel is being sought by the WPB, to cut inventories and gain 2,000,000 tons of steel. Working through its 12 Regional Offices, Steel Division officials have been sent by the Washington Office to work with consumers, in an effort to see if steel supplies on hand will permit the elimination or deferment of third and fourth quarter orders on producers' books without interfering with the production of important war equipment.

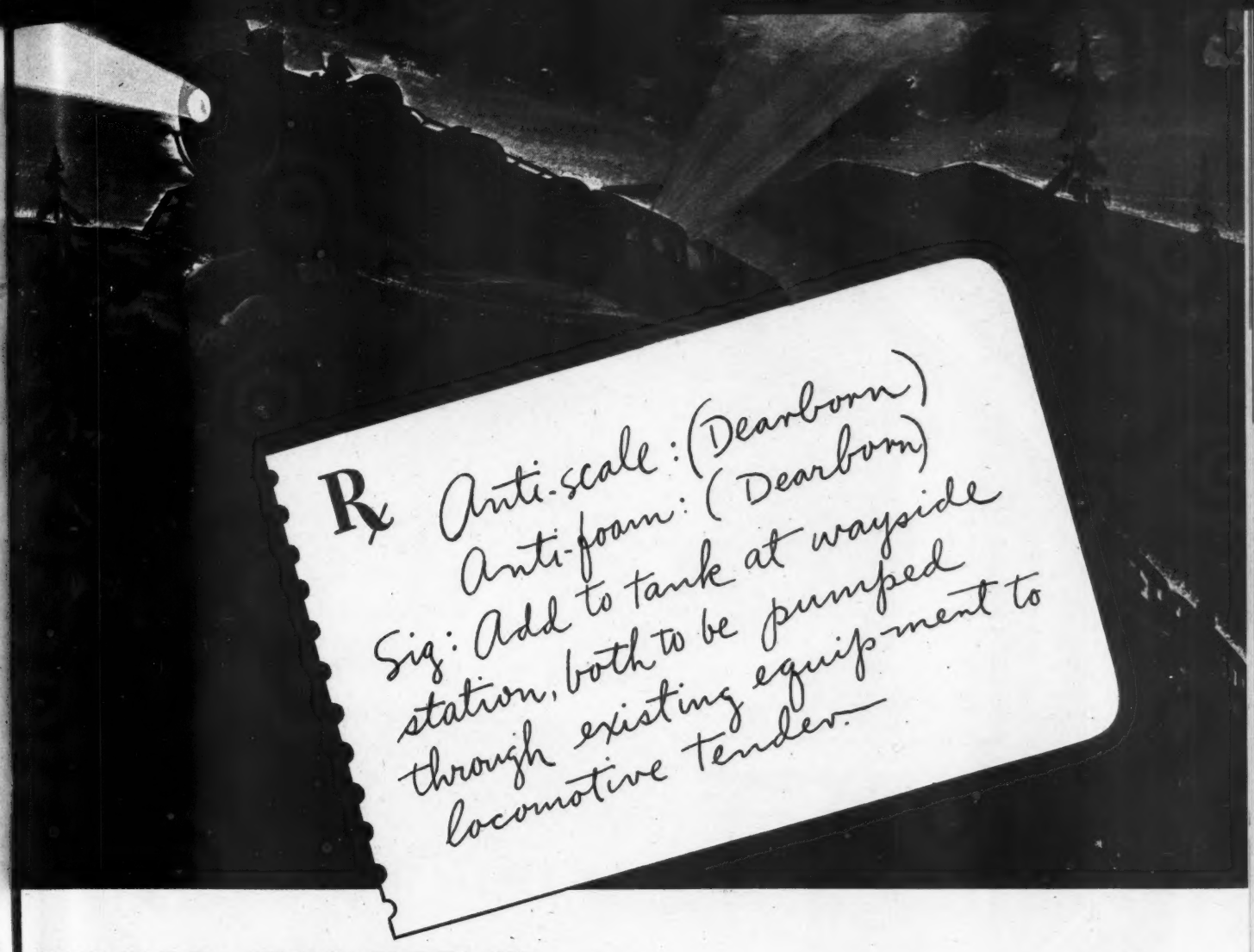
This effort to "share the steel," if successful, will permit the diversion of tonnage to other manufacturers of war products who need it.

If each manufacturer will check his inventories against requirements carefully and avoid duplicate stocks, this government program may accomplish its purpose and make available the extra two million tons of steel needed during the last six months of the year.

Stocks of steel in the hands of commercial warehouses strategically located to serve *all* manufacturers help to overcome the necessity for large individual inventories and many duplicate stocks.

These steel service plants with long experience in stocking, cutting and shipping steel on a moment's notice—are definitely the answer to the problem. Throughout the history of America, in peace and in war, they have served this very purpose. And now, in this greatest national emergency, they are carrying the burden—and stand ready to do even more to make it safe and practical to reduce high inventories, eliminate duplicate stocks, and lower the overall tonnage of idle steel. Joseph T. Ryerson & Son, Inc. Steel-Service Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City.

RYERSON



WAR TONIC... with a great peacetime future

Proper treatment of locomotive boiler water scientifically administered is a war tonic that is doing a big job. From many quarters and in numerous articles on the subject, high praise is given to the progress made in water treatment methods, chemicals, and equipment.

We are glad to have contributed substantially and to have been in the forefront with a combination treatment which has proved so beneficial in eliminating scale and overcoming carryover and foaming.

The latest improvement in product is Dearborn's new AMINE type anti-foam, which has proved to be most effective in these days of greater speed and round-the-clock service.

It permits higher maximum safe concentration of solids in the boiler water, thus proportionately reducing blow-off requirements. It prevents foaming and carryover, and the choking-up sluggishness incident thereto.

It is of greatest advantage to those roads having Dearborn-equipped wayside water stations. This new anti-foam can be proportioned in the tank along with the anti-scale, and the anti-scale solution with anti-foam characteristics pumped through the existing equipment without changes or additions at the wayside plant.

35% fewer locomotives haul 41% more load

—that is the task created by the necessities of war and made possible to accomplish (to an admitted degree) by scientific water treatment. This treatment is responsible also for longer runs of locomotives between shoppings, resulting in a saving of man-hours of engine house and shop forces. Thus, the railroads can release more men to the armed forces without affecting their efficiency.

The war tonic will continue to serve well not only for the duration, but also in peacetime operation. And new records will be achieved as research goes on apace in the Dearborn laboratories.

If you are not serviced now by Dearborn, we invite you to call us. There's a Dearborn Engineer nearby to help you.

DEARBORN CHEMICAL COMPANY

310 S. Michigan Ave., Chicago
205 E. 42nd St., New York
807-15 Mateo St., Los Angeles
2454 Dundas St., West, Toronto

Dearborn

TRADE MARK REGISTERED

BOILER WATER TREATMENT AND SERVICE

[For Victory, Buy United States War Bonds and Stamps]

SCIENCE MEASURES FATIGUE

A Marine on a treadmill, hiking full-pack through tropical heat—that's how they test what a *fighter* can stand.... We have the same idea—with A. S. F. side frames, for instance. A fatigue machine crowds *years* of wear into *hours* of break-down testing. A. S. F. engineering and metallurgical research is developing *better* steel compositions and heat treatments, *better* designs... to carry forward the reputation of America's greatest steelcaster.

AMERICAN STEEL FOUNDRIES

CHICAGO

FIREMAN FARRIS AND HIS SAFETY IDEA

On his regular run over the Fort Worth division, Fireman J. L. Farris often highballed through Pottsboro, Texas, where crew members picked up their southbound orders.

More than once he had seen his friend, Station Agent G. F. Harshbarger, lurch dangerously toward a fast-moving train while handing up "19" orders.

It takes a particular brand of nerve to stand close to the track when a fast train is rushing toward you. Agent Harshbarger had nerve enough—but the blast of air sometimes affected his footing.

So Fireman Farris started thinking. One day, after a book-of-rules meeting, where the Trainmaster was discussing the problem of reducing accidents to train employees, he got a bright idea.

Salvaging parts of an ancient phonograph and a retired sewing machine, he fabricated a working model of his idea for a new-style, train-order arm to give the agent a break.

Superintendent J. J. Gallagher of the North Texas district saw this model. "Why don't you build a full-size contraption and let us test it at Pottsboro?" Gallagher suggested.

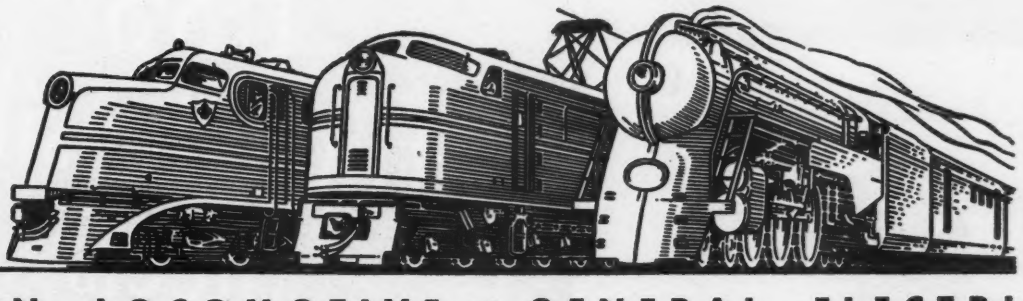
Farris put together a post—9½ feet high—made of graduated sizes of iron pipe that telescoped into one another. A system of springs and ratchets made it possible to raise the device to any desired height, after train orders had been attached to a string in the fork of the arm.

Then he tried it out, at Pottsboro. As a fast train passed, the engineer reached from his cab window and took his message. That automatically released a trigger that swung the arm parallel to the track and out of the danger zone.

At the same time a lower arm was automatically placed in a lower position for some one at the rear of the train to pick off the conductor's orders, whereupon the lower arm was automatically swung—by the ratchet and spring mechanism—parallel to and a safe distance from the track.

Fireman J. L. Farris became a recognized inventor, because the device was adopted as standard by his road. Agent Harshbarger became his very best booster. And a new chapter had been written in the history of railroad safety devices.

—The Trackwalker



Alco GE

AMERICAN LOCOMOTIVE • GENERAL ELECTRIC

Copr., 1943, American Locomotive Company and General Electric Company

113-33-9500

"Tin cans" they called

Cor-Ten-built hopper cars increase payload capacity 5½ tons

THIS HOPPER CAR, one of 100 built by the Pressed Steel Car Company, illustrates the extreme weight saving made possible by using U·S·S COR-TEN in minimum sections — taking full advantage of the high physical properties of this steel and still retaining the required strength consistent with safety. This car shows a reduction in lightweight of 11,500 lb. over that of the A.A.R. 1935 car, with payload capacity increased accordingly. Note these figures . . . side sheets are 3/32" COR-TEN as compared to the 3/16" A.A.R. construction; top floor sheets are 3/32" as compared to ¼"; bottom floor sheets are ⅛" as compared to ¼"; hopper sheets are 5/32" COR-TEN as against ¼". The average load limit is 138,500 lb.; the light weight 30,500 lb.; ratio of capacity load to gross load 82%; ratio of revenue load to light weight 4.54.

U·S·S
High Tensile
Steels

USS

them eight years ago

But—THEY'RE STILL ON THE JOB HAULING 5 EXTRA TONS OF ORE OR LIMESTONE EVERY TRIP

JUST glance over the specifications of these 100 light-weight "experimental" 50-ton hoppers built back in 1935 when COR-TEN steel was making its debut.

COR-TEN side sheets and end sheets 3/32" thick; slope sheets and hopper pockets of 3/32" and 5/32" COR-TEN—about one-half the normal thicknesses in cars of conventional design. Nothing like this had ever happened before!

No wonder the skeptics rallied around and seemed surprised when they found they couldn't dent these cars with a doubting finger.

When we told them that these cars—weighing only 30,500 lb.—with a carrying capacity of 138,500 lb. and a load ratio of 82% (still the highest on record)—were expected to haul coal, ore and limestone and go through car dumpers at both ends of the haul, hard-boiled railroad men shook their heads. "They'll fold up like an accordion the first time they go through the dumper" was a favorite comment. Many expressed the opinion that the cars would not last more than a year.

That was eight years ago. Since then these cars, the lightest hoppers ever built of U·S·S COR-TEN, have made an average of 274 trips. They have travelled approximately 40,000 miles each. Have together hauled 150,000 *extra* tons of lading. Not one of them as yet has been given a general overhaul. There is no indication of failure in any predictable future.

It is on actual records of fine performance like this, that we suggest that you plan to give serious consideration to U·S·S COR-TEN when you plan your after-the-war reconstruction and rehabilitation program.

CARNEGIE-ILLINOIS STEEL CORPORATION

Pittsburgh and Chicago

Columbia Steel Company, San Francisco, *Pacific Coast Distributors* · United States Steel Export Company, New York

★ ONE AIM . . . VICTORY . . . *BUY BONDS!* ★

UNITED STATES STEEL

So Much

● Battles cannot be won without adequate equipment and manpower. The magnificent courage of free men in Poland —Holland—Norway—Belgium—France—Bataan—Malay and all occupied countries will live forever but, courage alone was not enough. There were not enough materials—not enough munitions—not enough tanks and planes. England was saved because the R.A.F. had a few hundred superior fighting planes. In a speech before the House of Commons on August 20, 1940, Prime Minister Winston Churchill stated "Never before in the field of human conflict was so much owed by so many to so few." Equipment plus the courage of the R.A.F. saved an empire.

● Today the story is different—the production of American industries is flowing in an ever increasing volume to all fronts —there is not going to be another Bataan or Dunkirk—this production has saved the world for free-thinking people.

EDGEWATER STEEL COMPANY • PITTSBURGH, PA.

WITH SO LITTLE

● On the home front we find that the railroads have achieved a tremendous victory—handling 58% more traffic in 1942 than in 1918—and with 20,000 fewer locomotives and a half-million fewer cars than in the last World War.

● Everybody on the railroads from the Presidents down to the track laborers rolled up their sleeves and said "Okay Uncle Sam! We will not fail you."

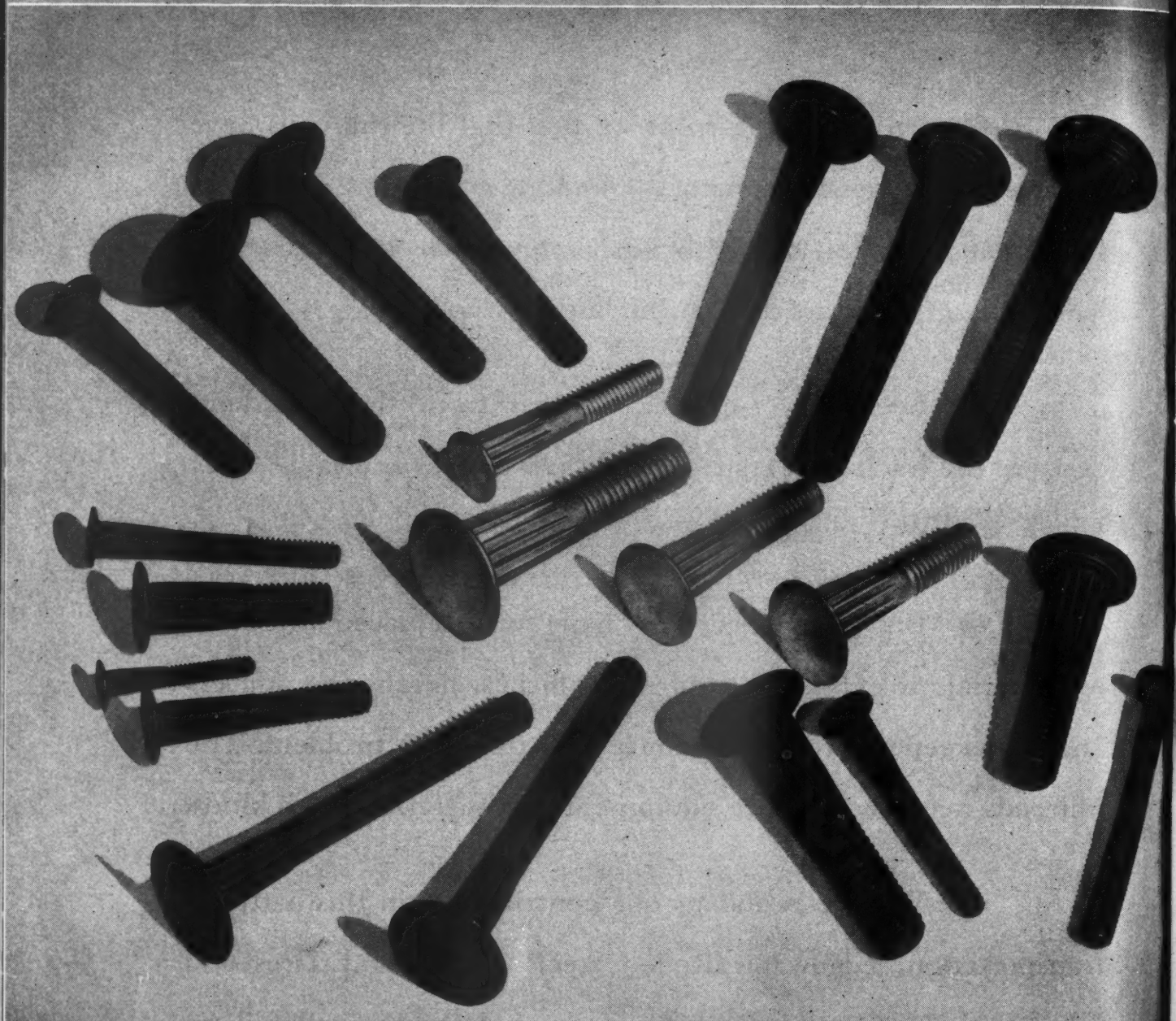
● But, even horseshoes have to be replaced—the store of materials is exhausted—railroad officials, purchasing officers and storekeepers are vitally concerned over this problem. The railroads need vastly more equipment and materials of all kinds.

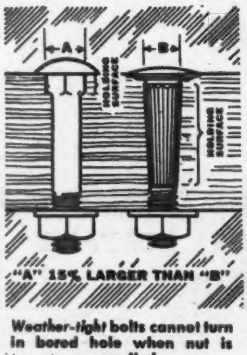
● We are proud of our contribution in this battle of transportation. Edgewater Rolled Steel Wheels and Tires and Edgewater Ring Spring Draft Gears are helping the railroads to get the maximum service mileage from their rolling stock.

ATLANTA BALTIMORE BOSTON CHICAGO CLEVELAND KANSAS CITY
LOUISVILLE NEW YORK PHILADELPHIA ST. LOUIS ST. PAUL
SAN FRANCISCO SEATTLE TULSA WASHINGTON

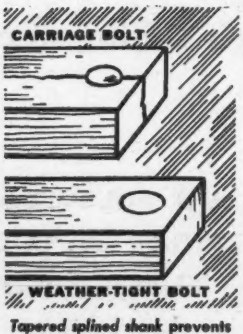
*Weather-tight** Bolts for

AND MAKE A TIGHT





Weather-tight bolts cannot turn in bored hole when nut is applied.



Tapered splined shank prevents splitting board near end

Weather-tight bolts offer no projections to catch shovels

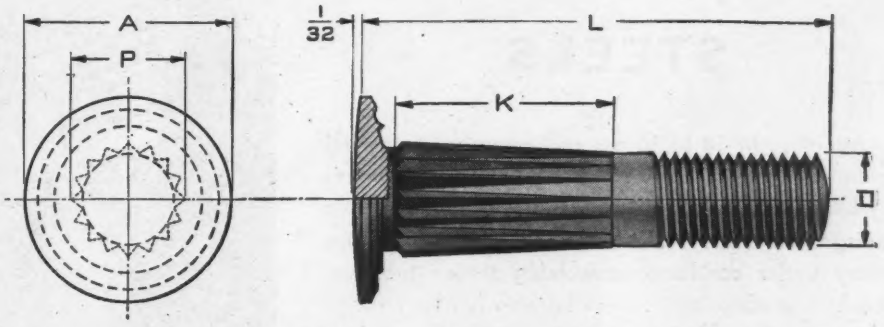
Weather-tight bolts prevent floors "bumpy" with bolts

Abrasion does not sharpen edges of *Weather-tight* bolt heads

r wood need no counterboring

T ASSEMBLY MUCH FASTER

● When you change from steel to wood construction—you will need a bolt that will make a weather-resisting, sturdy assembly. You will need a bolt that can be applied fast, that will pull up tight, and that will need no counterboring. Lamson *Weather-tight* bolts meet these requirements!



Lamson *Weather-tight* bolts have a splined shank 15% smaller than the cross-corner dimension of a square-shanked carriage bolt. This factor means that the *Weather-tight* bolt can be used nearer the end of a board than an ordinary carriage bolt without danger of splitting the board.

Weather-tight bolts have a *tapered, splined shank* that fits the bored hole *like a cork in a bottle,* and the splines *prevent the bolt turning* when the nut is applied. Gripping power is greater due to the *greater area* of the bolt in contact with the wood.

A carriage bolt head must set on top of the wood surface, the square shoulder of the shank crushing wood fibers, or must be countersunk. A Lamson *Weather-tight* bolt needs no counterboring, and the head *sets flush* with the wood surface. That feature alone saves time in application. It also insures that *Weather-tight* bolts offer no protruding projections. Besides that, Lamson *Weather-tight* bolts have *two concentric, annular ribs beneath the head,* which compress wood fibers *below the bead.* These two ribs seal the *head end* of the bolt against admitting moisture —and the *tapered splined shank* seals the opposite end of the bolt against moisture, making a complete, *weather-tight* assembly!

Lamson *Weather-tight* bolts are made in standard sizes, from 3/16" diameter up to 3/4" diameter, any length. Large and small heads are available, on your specification. From bridge trusses to skid platforms, Lamson *Weather-tight* bolts are being specified in ever-increasing quantities. Their amazing efficiency is easily demonstrated by any test you care to make. Ask for samples in the sizes you need, and price list.

THE LAMSON & SESSIONS COMPANY
General Offices: 1971 West 85th Street, Cleveland, Ohio

*U. S. Patent No. 1830554

D—BOLT SHANK DIAM.	10/24	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
A—HEAD DIAMETER	7/16"	9/16"	11/16"	13/16"	1 1/16"	1 5/16"	1 9/16"
K—MIN. STANDARD Length of Ribbed Section	31/64"	3/4"	3/4"	7/8"	1 1/8"	1 1/8"	1 1/8"
K—SHORTER THAN STD. Length of Ribbed Section	1/4"	3/8"	3/8"	7/16"	9/16"	9/16"	9/16"

These four books will help you in specifying and buying "standard" bolts, nuts and "specials"

THE LAMSON BLUE BOOK—is our complete Catalog of standard products excepting our Aircraft products.

"BOLTS, NUTS & SCREWS"—70 pages of technical and practical information. First copy gratis, requested on your letterhead. Additional copies one dollar each.

"BOLT, NUT & RIVET STANDARDS"—175-page book published by the American Bolt, Nut & Rivet Manufacturers Association, 1550 Hanna Bldg., Cleveland, Ohio. Price one dollar per copy. (Order from publishers please.)

"SIMPLIFIED STOCK LIST"—Of bolts, nuts and screws, conforming to latest revisions of the Office of Price Administration, and of great value in showing you in what ratio quantities of various standard products are kept in stock for deliveries, by your jobbers and in our own (and other bolt manufacturers') warehouse stocks.

LAMSON & SESSIONS

BOLTS · · NUTS · · COTTERS · · CAP SCREWS · · SPECIALS

Your Jobber Stocks the Lamson Line

Why Manganese is used in

ENGINEERING STEELS

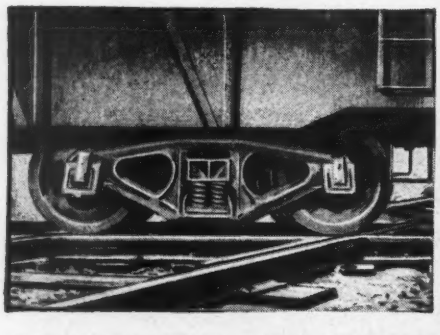
Additions of 10 to 16 per cent manganese to steel greatly increase a steel's resistance to wear, and thereby broaden its applications in engineering jobs. These manganese steels . . . instead of quickly wearing away under conditions combining severe pressure, shock, and abrasion . . . will become harder through use, and will last longer.

The ability of high manganese steels to workharden serves industry in important and varied applications. Manganese steel castings are used for railway frogs and crossings, rock-crusher parts, steam-shovel dipper teeth, dredge-bucket lips, centrifugal pump parts for gravel dredges. The chief application of rolled manganese steel is in rails used for special service, and for light forgings subjected to heavy wear.

Besides manganese, we produce other ferro-alloys and metals . . . such as chromium, silicon, vanadium, tungsten, columbium, boron, calcium, and zirconium . . . used in alloy-steel making. We do not make alloy steels, but we have over 35 years of experience with their development and use. If you have a problem in the selection or application of an alloy steel, call on us.

BUY UNITED STATES WAR BONDS AND STAMPS

Bulldozers **used in road construction utilize the strength and wear-resistance of manganese steels in the blade, in axle and spline shafts, steering arms, drive pinions, structural parts, gears, and treads.**



Railway crossings, **frogs, and rails are made of high manganese steels to withstand the wear and the weight of heavily loaded trains that can not be delayed for road repairs.**

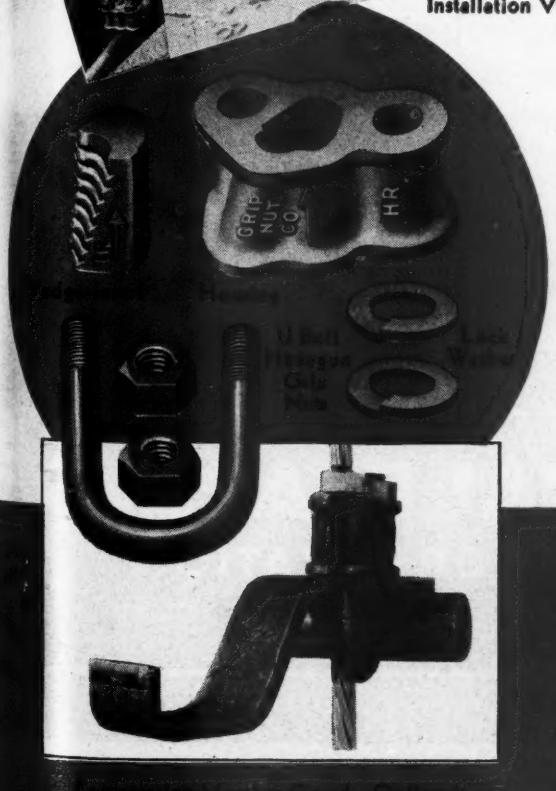
Dipper bucket teeth **are cast of Hadfield steel that increases in hardness and life-length under abrasive wear from gravel and rock in construction work.**

Jaw crushers **used in breaking up rock have wearing parts made of Hadfield steel because the steel gains longer life from cold working under heavy pressure and severe abrasion.**

ELECTRO METALLURGICAL COMPANY
Unit of Union Carbide and Carbon Corporation
30 East 42nd Street New York, N. Y.
In Canada: Electro Metallurgical Company of Canada, Limited, Welland, Ontario

Electromet
Trade Mark
Ferro-Alloys & Metals

Installation View



UNIVERSAL BRAKE BEAM SAFETY SUPPORT*

ADJUSTABLE, fits all cars, no need to stock many different units to meet all conditions.

LIGHT in weight, yet **STRONG,** high safety factor, saves material.

Easy to handle and install, requires no drilling or any special tools.

Recommended for new equipment as well as for replacements.

Thousands of car sets in service everywhere.

Descriptive folder, specifications and demonstration upon request.

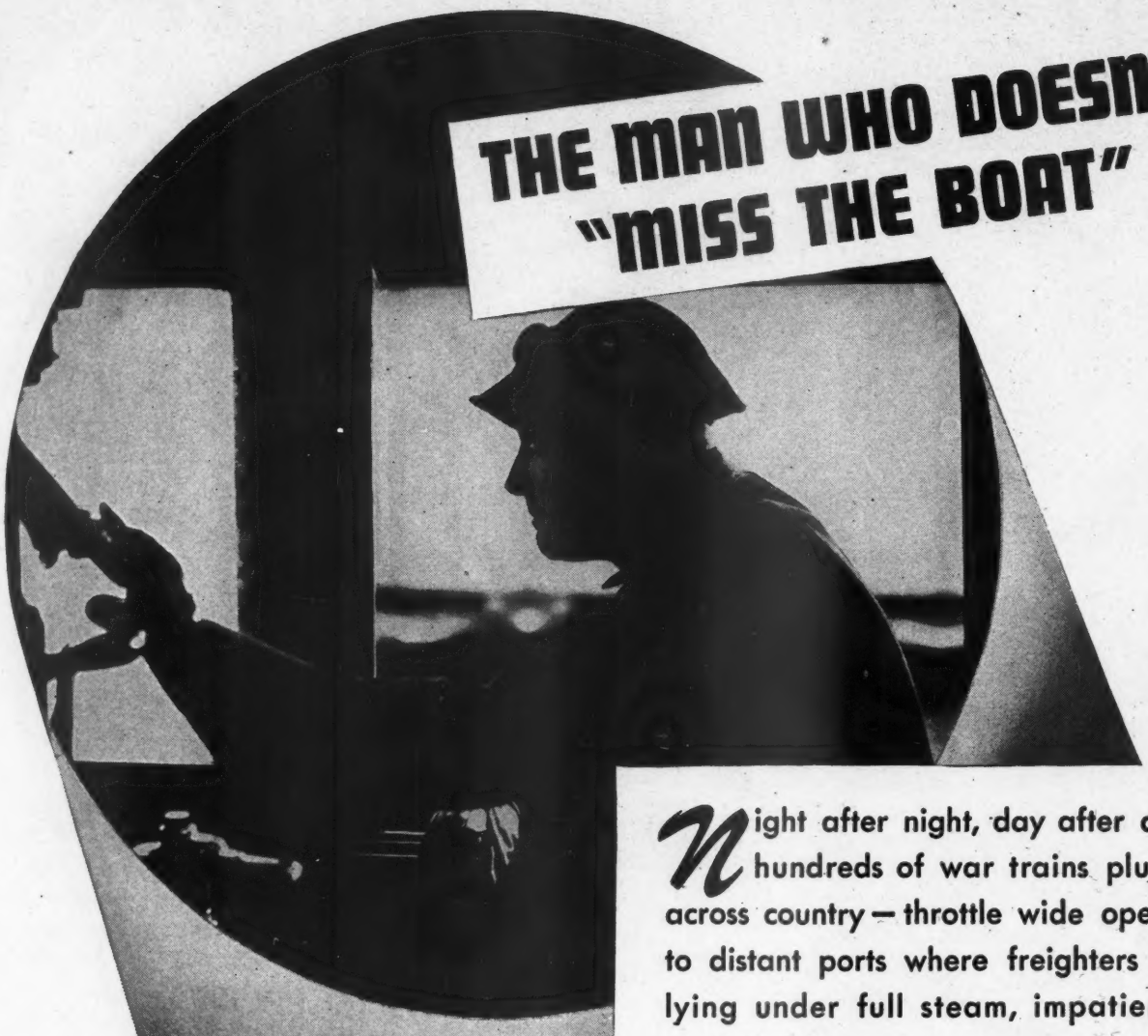
GRIP NUT COMPANY

120 South Michigan Avenue Chicago, Illinois

serving American Railroads since 1905

Regional Offices: St. Paul, Minneapolis, St. Louis, San Francisco, Cleveland, Salt Lake City, Salisbury, N. C., Pittsburgh, New York

THE MAN WHO DOESN'T "MISS THE BOAT"



Night after night, day after day, hundreds of war trains plunge across country — throttle wide open — to distant ports where freighters are lying under full steam, impatiently awaiting their precious cargo.

This gruelling pace calls for parts that can stand plenty of punishment without failure:

N·B·M

CAR JOURNAL BEARINGS AND BRONZE ENGINE CASTINGS

NBM

NATIONAL BEARING METALS CORPORATION

ST. LOUIS • NEW YORK

How to select the correct N.E. STEEL!

N.E. TYPES COMPARED WITH A.I.S.I. TYPES
CROSS SECTION HARDNESS OF ROUNDS
TENSILE STRENGTH TESTS
IZOD IMPACT TESTS
N.E. TYPES COMPARED WITH A.I.S.I. TYPES
N.E. END QUENCHED HARDENABILITY
INSTITUTE

• Republic's N. E. Steel Handbook will tell you how! It will bring you valuable facts and information prepared by the same men who helped develop the National Emergency Steels — Republic metallurgists.

This timely book offers an unusually complete description of the N.E. Steels, their chemical analyses, physical properties, their relationship to standard steels and why they substitute satisfactorily for high alloy steels.

It presents the very information you need on how to select the correct N.E. grade for each application, how to fabricate it and the precautions to exercise. It explains the end quench hardenability test and why it is used in predicting certain physical properties. It contains many useful tables, including combined standard lists of A.I.S.I. and S.A.E. steels.

Thousands of these books already have been distributed and are proving of inestimable value in helping steel users speed up and increase war production. If you are an engineer, metallurgist or production executive using N.E. steels, or if you contemplate changing to them, you should have a copy. Fill in and send the coupon below, and your book will be mailed promptly.

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—REPUBLIC—
Alloy **STEELS**

Republic Steel Corporation, Dept. *RA*
3100 East 45th Street, Cleveland, Ohio

Please send me a copy of your N.E. Steels Handbook

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Don't put Johnny on the spot!

HERE'S HOW TO CARE FOR YOUR EXIDES:

1. Keep adding approved water at regular intervals. Most local water is safe. Ask us if yours is safe.
2. Keep the top of the battery and battery container clean and dry at all times. This will assure maximum protection of the inner parts.
3. Keep the battery fully charged—but avoid excessive over-charge. A storage battery will last longer when charged at its proper voltage.
4. Record water additions, voltage, and gravity readings. Don't trust your memory. Write down a complete record of your battery's life history. Compare readings.

If you wish more detailed information, or have a special battery maintenance problem, don't hesitate to write to Exide. We want you to get the long-life built into every Exide Battery. Ask for booklet on Industrial Truck Batteries, or Car Lighting Batteries.

You know Johnny. He's that swell kid from down the street . . . or maybe, from your own house. He's "Johnny on the spot" when it comes to a scrap, but don't put him on another, more dangerous spot, by wasting materials he needs for the fight.

Conservation of materials is important. Buy only the best and longest-lasting tools or equipment. Take care of everything you use, and you'll ease the pressure on America's raw materials, industries, and labor.

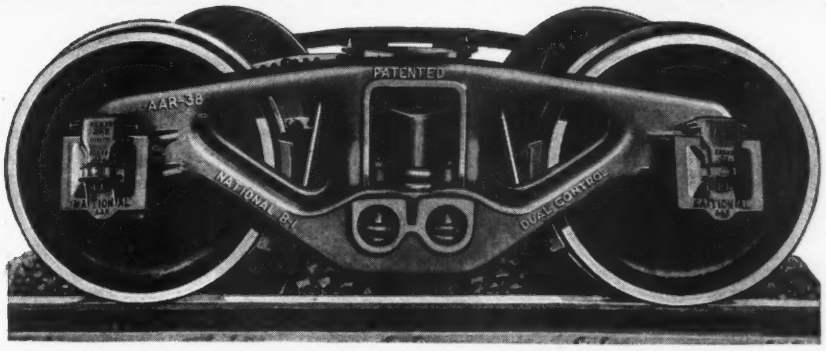
Exide
IRONCLAD
BATTERIES

Buy to Last and *Save to Win* means plenty at home and on our fighting fronts, too. It's a big step toward Victory . . . and pays dividends in extra use of equipment.

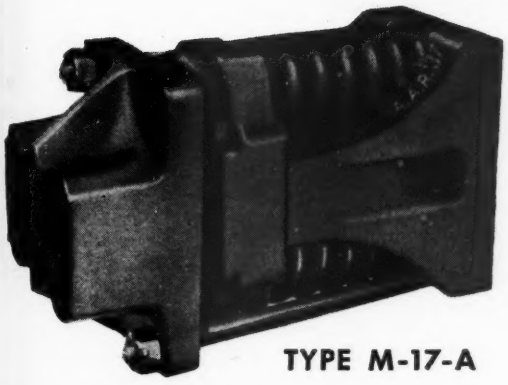
THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia
Exide Batteries of Canada, Limited, Toronto

NATIONAL PRODUCTS

KEEP'EM ROLLING

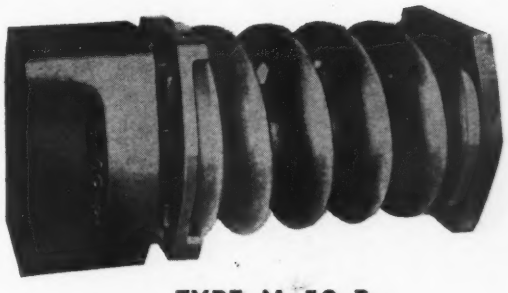


NATIONAL B-1 TRUCK WITH DUAL CONTROL

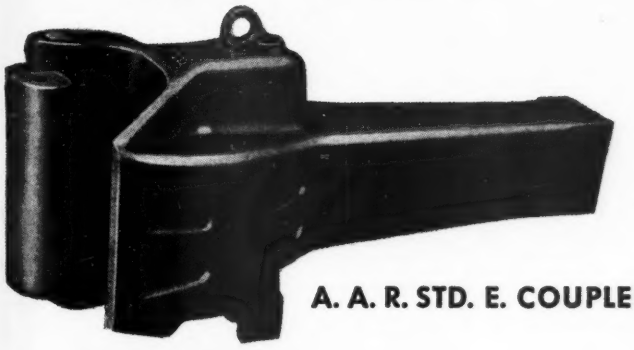


TYPE M-17-A

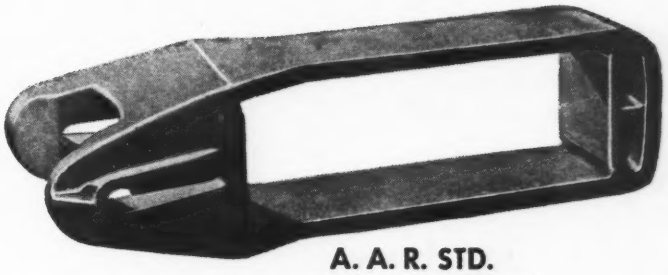
A.A.R. Approved Draft Gears



TYPE M-50-B

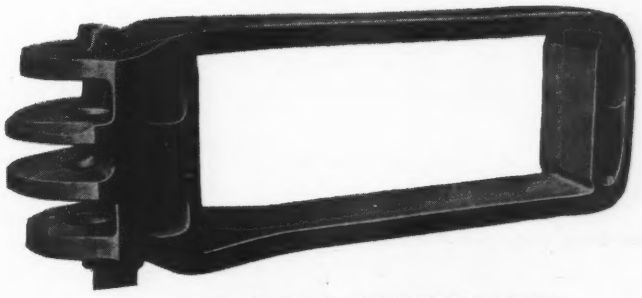


A. A. R. STD. E. COUPLER



A. A. R. STD.
VERTICAL PLANE
HORIZONTAL KEY YOKE

A. A. R. ALTERNATE
STD. E. COUPLER



A. A. R. ALTERNATE STD.
VERTICAL PLANE SWIVEL YOKE

NATIONAL MALLEABLE AND STEEL CASTINGS CO.

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco.
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Serving

America's great railroads

with fast, smooth,

safe, low-cost switching...

Baldwin-Westinghouse

Diesel-Electric Locomotives

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AMERICAN STEEL & WIRE
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ATLANTIC COAST LINE
CENTRAL OF GEORGIA
CENTRAL RAILROAD OF NEW JERSEY
CHICAGO & EASTERN ILLINOIS
C. M. ST. P. & P.
C. & W. I. FOR BELT RY. OF CHICAGO
CHICAGO SHORT LINE
DENVER & RIO GRANDE WESTERN
ELGIN, JOLIET & EASTERN
GREAT NORTHERN
KENTUCKY & INDIANA TERMINAL
LITCHFIELD & MADISON
LOUISVILLE & NASHVILLE
MACON, DUBLIN & SAVANNAH
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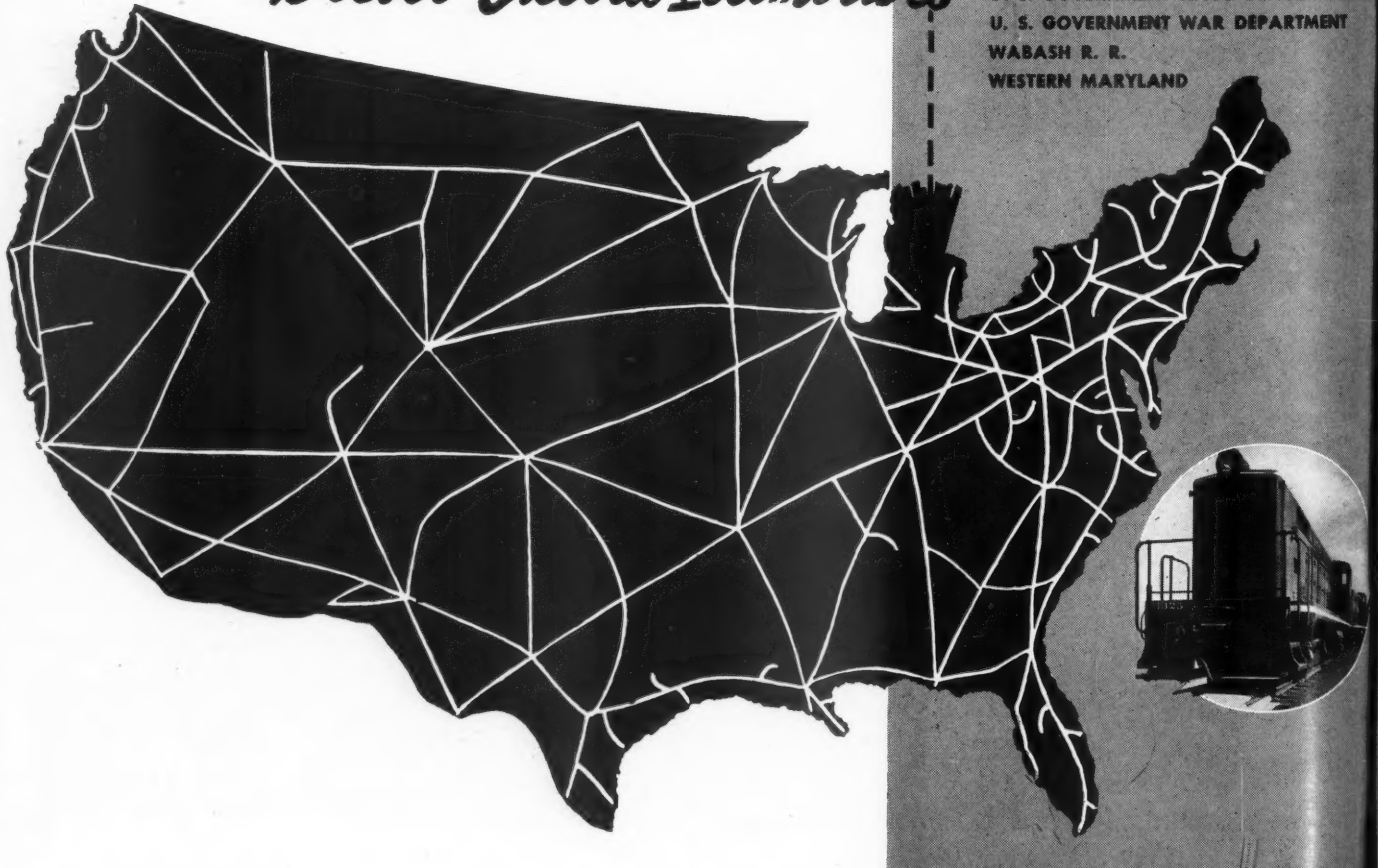
SPOKANE, PORTLAND & SEATTLE
ST. LOUIS-SAN FRANCISCO
ST. LOUIS SOUTHWESTERN
TERMINAL R. R. ASSOC. OF ST. LOUIS
UNION RAILROAD
UNION RAILWAY (OF MEMPHIS)
UPPER MERION & PLYMOUTH
U. S. GOVERNMENT NAVY DEPARTMENT
U. S. GOVERNMENT WAR DEPARTMENT
WABASH R. R.
WESTERN MARYLAND



From coast to coast, Baldwin-Westinghouse Diesel-Electrics are helping to speed the movement of raw materials and finished products so vital to America's war program. And these diesel-electrics are doing their job with speed and economy. They have many advantages over older steam switchers. They move away under smooth, even power . . . handle cars with ease . . . minimize damage . . . operate with maximum availability . . . consume less fuel.

Every Baldwin-Westinghouse Diesel-Electric, powered with Baldwin De La Vergne, 4-cycle diesel engines and Westinghouse electrical transmission equipment, is backed by the combined experience of two great companies which have pioneered in the building of railroad equipment. The result is a rugged, dependable motive power unit, designed and built to meet the most severe requirements of railroad service.

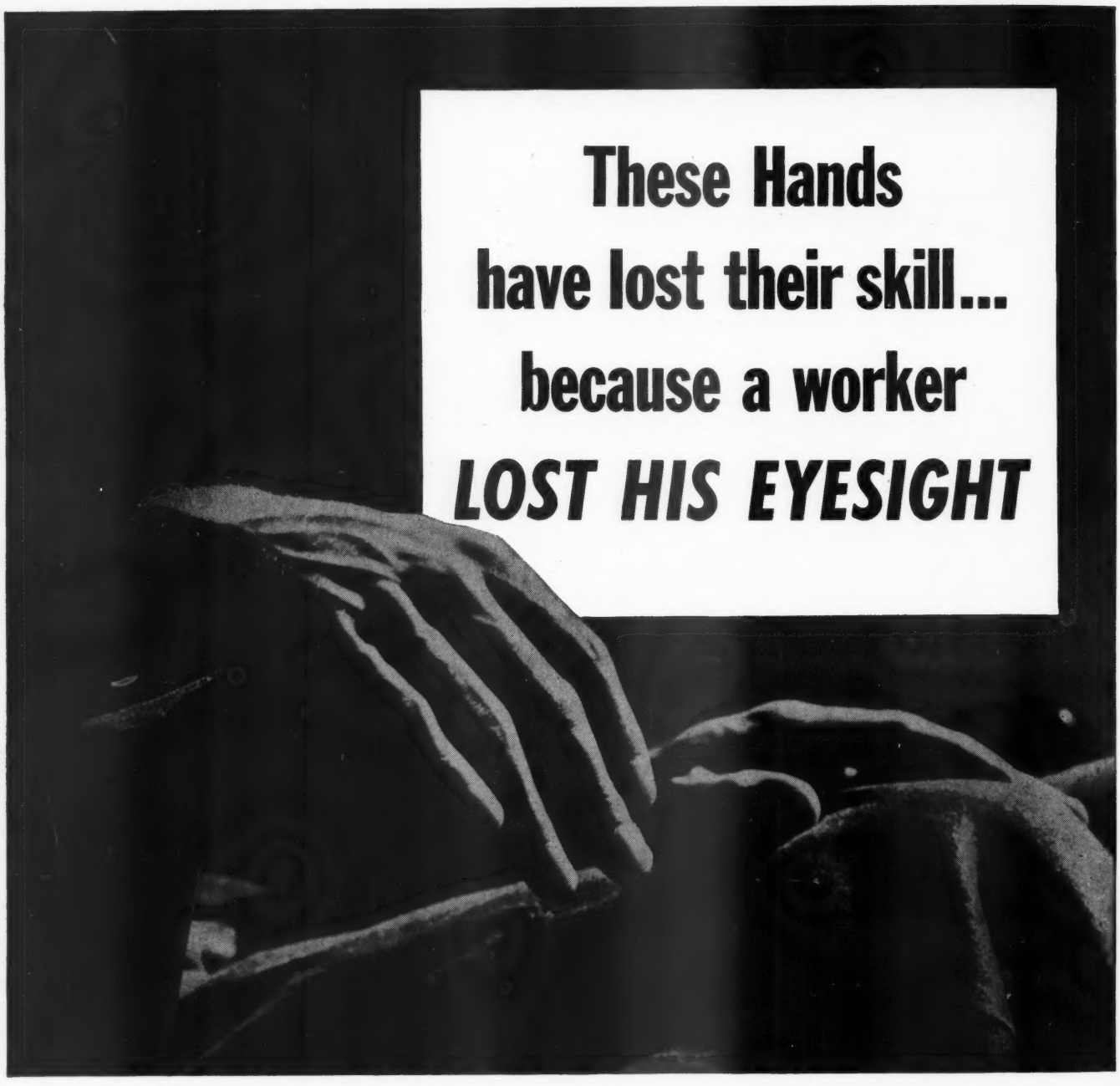
THE **BALDWIN**
LOCOMOTIVE WORKS, PHILADELPHIA

BLW THE BALDWIN GROUP

WESTERN W DSE

Westinghouse

ELECTRIC & MANUFACTURING CO., EAST PITTSBURGH, PA.



protect your workers' eyes with AO Goggles

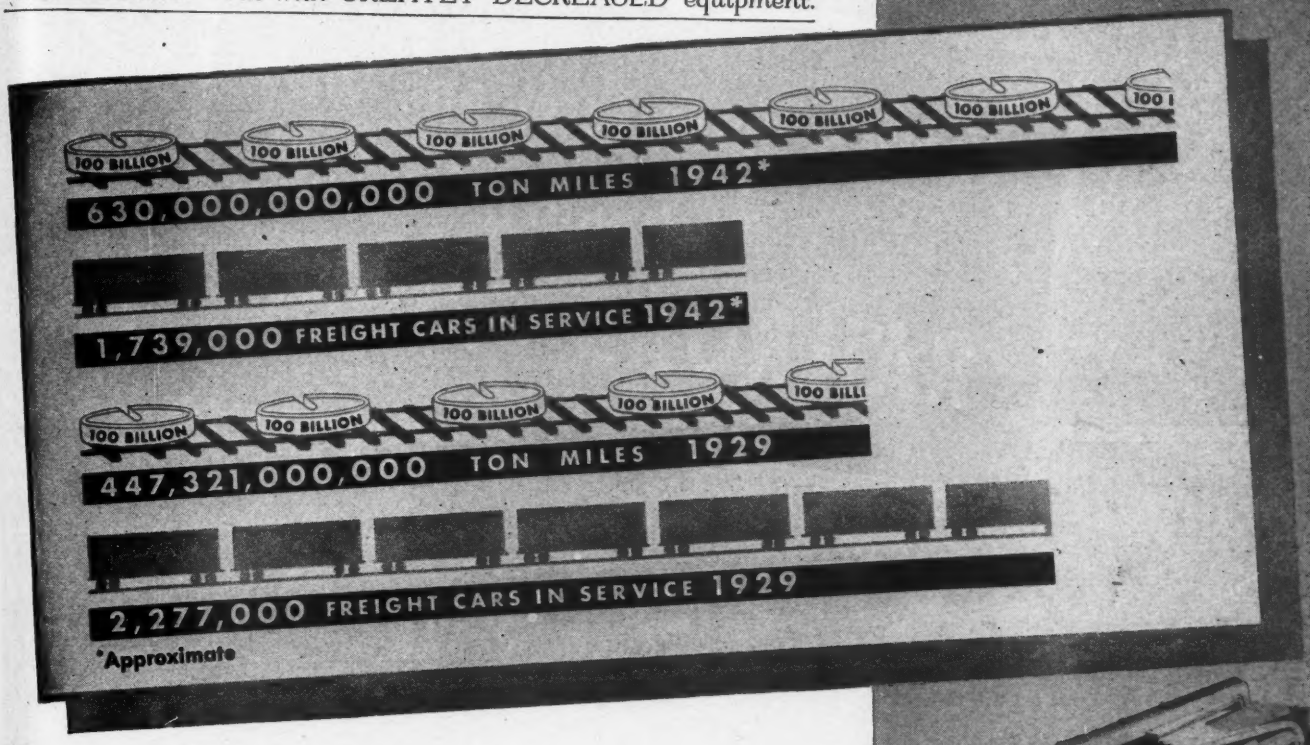
Without eyes to guide them, skilled hands can't produce. Protect your workers' eyes *now* — before it is too late... for the war of production cannot spare the services of a single man or woman. To win this war, *all* skilled hands must be producing on full-time schedule.

American Optical Company offers you a complete line of scientifically designed goggles... a specialized type for every kind of eye hazard in your plant. For effective protection against impact, we recommend goggles equipped with Super Armorplate lenses... without power or ground to individual prescription. Call in your American Optical Safety Representative today.

American Optical
COMPANY
SOUTHBRIDGE, MASSACHUSETTS

HERE IS THE *Railway* WAR RECORD

Railroads have tremendously increased the "production" of transportation—not because of increased equipment and facilities like many other industries—but with GREATLY DECREASED equipment.



Here's the record of freight transportation:

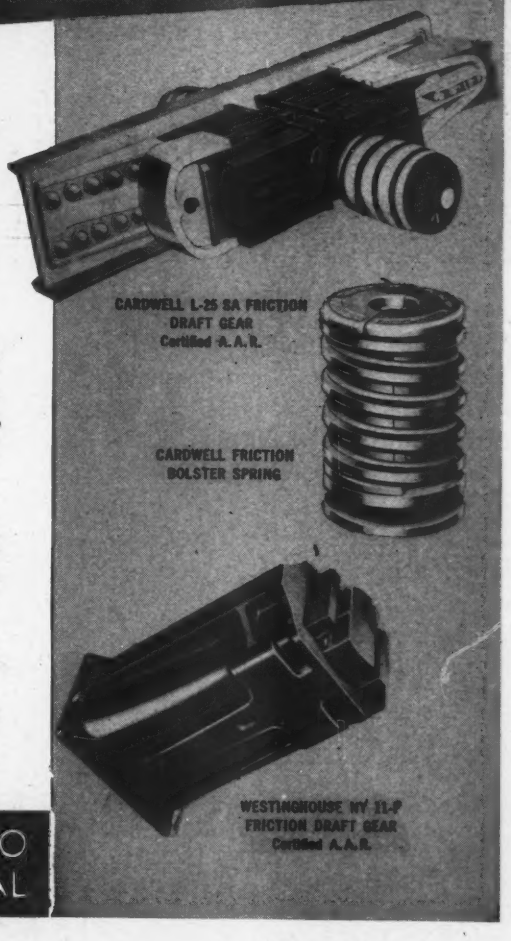
Freight ton-miles in 1942, approx. 630 billion (up 40.8% ABOVE the best previous year, 1929)

Decrease in freight cars in service, 538,000 (23.7% LESS than in 1929)

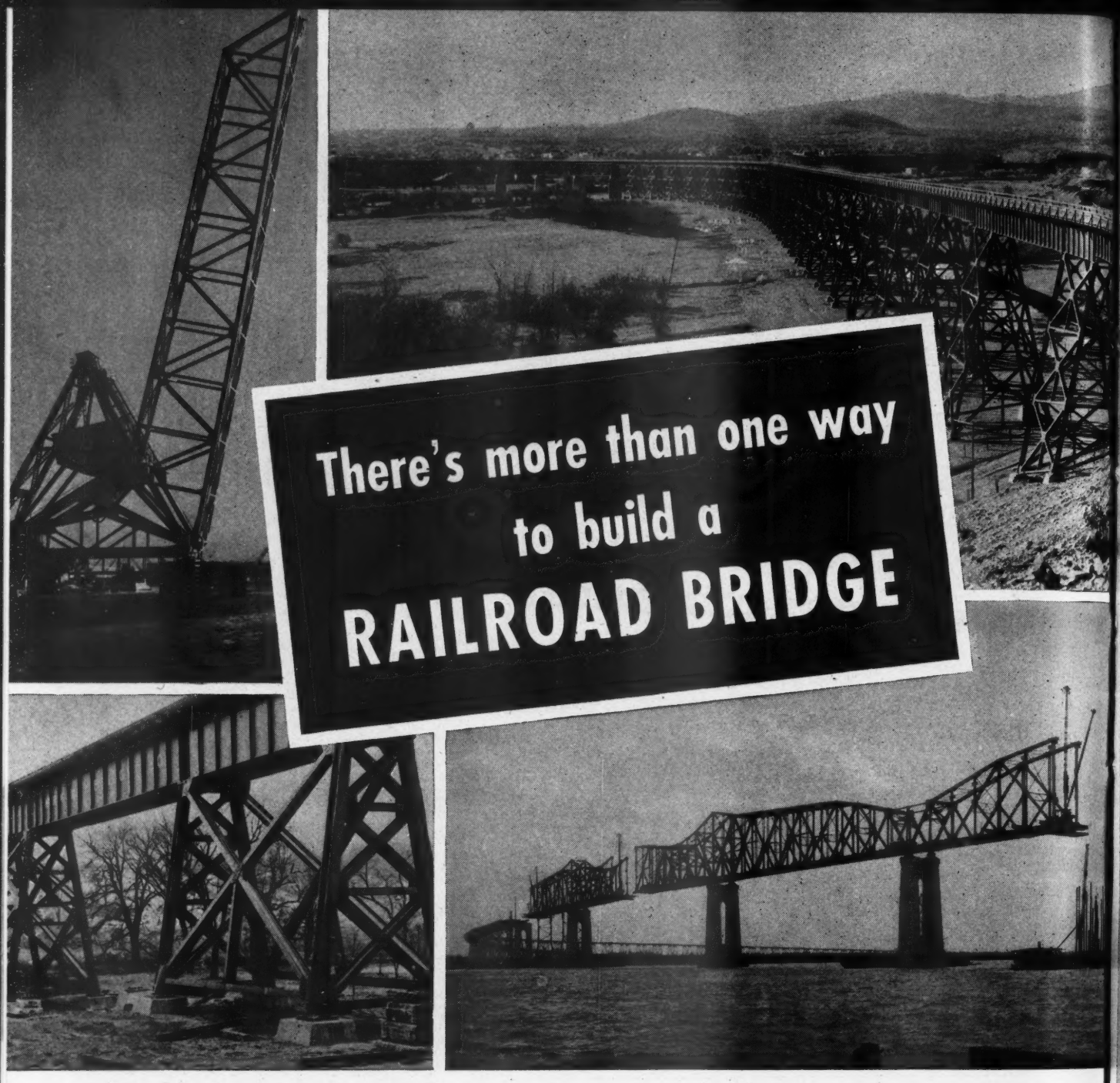
These unprecedented records were the result of constantly improved operating methods, the cooperation of railway employees, and the modernization of existing equipment to the maximum extent of railway financial ability.

Over 98% of the cars in freight carrying service are A.A.R. construction, and over 96% have Friction Draft Gears.

The research and service testing program of this company in cooperation with the A.A.R. have played an important part in the origination and improvement of friction draft gears, which have high shock absorbtion capacity and low recoil.


CARDWELL L-25 SA FRICTION DRAFT GEAR Certified A.A.R.
CARDWELL FRICTION BOLSTER SPRING
WESTINGHOUSE WF 11-P FRICTION DRAFT GEAR Certified A.A.R.

CARDWELL WESTINGHOUSE CO., CHICAGO
CANADIAN CARDWELL CO., LTD., MONTREAL



OUR construction records show that there are just about as many ways to build railroad bridges . . . as there are bridges! Each new structure has its own special problems as to loading, length of span, height of clearance, width of deck, stress conditions, and so on. Each project has its special objective, such as river crossing, grade separation, route shortening, and traffic coordination.

But in every new bridge we fabricate and erect, our shop personnel and construction crews find much that is familiar. In our more than 50 years of bridge-building experience, we have served virtually every kind of railroad requirement imaginable. This varied background has given our organization a unique versatility —an engineering flexibility that has won the confidence of railroad management throughout the nation.

While the war lasts, our engineering and construction resources are being concentrated exclusively on jobs that add to America's fighting power. But we're still busy at the task we know best—building with steel. This growing fund of structural experience will make us even better prepared to build bridges for tomorrow's needs. . .

AMERICAN BRIDGE COMPANY

General Offices, Frick Building, Pittsburgh, Pa.

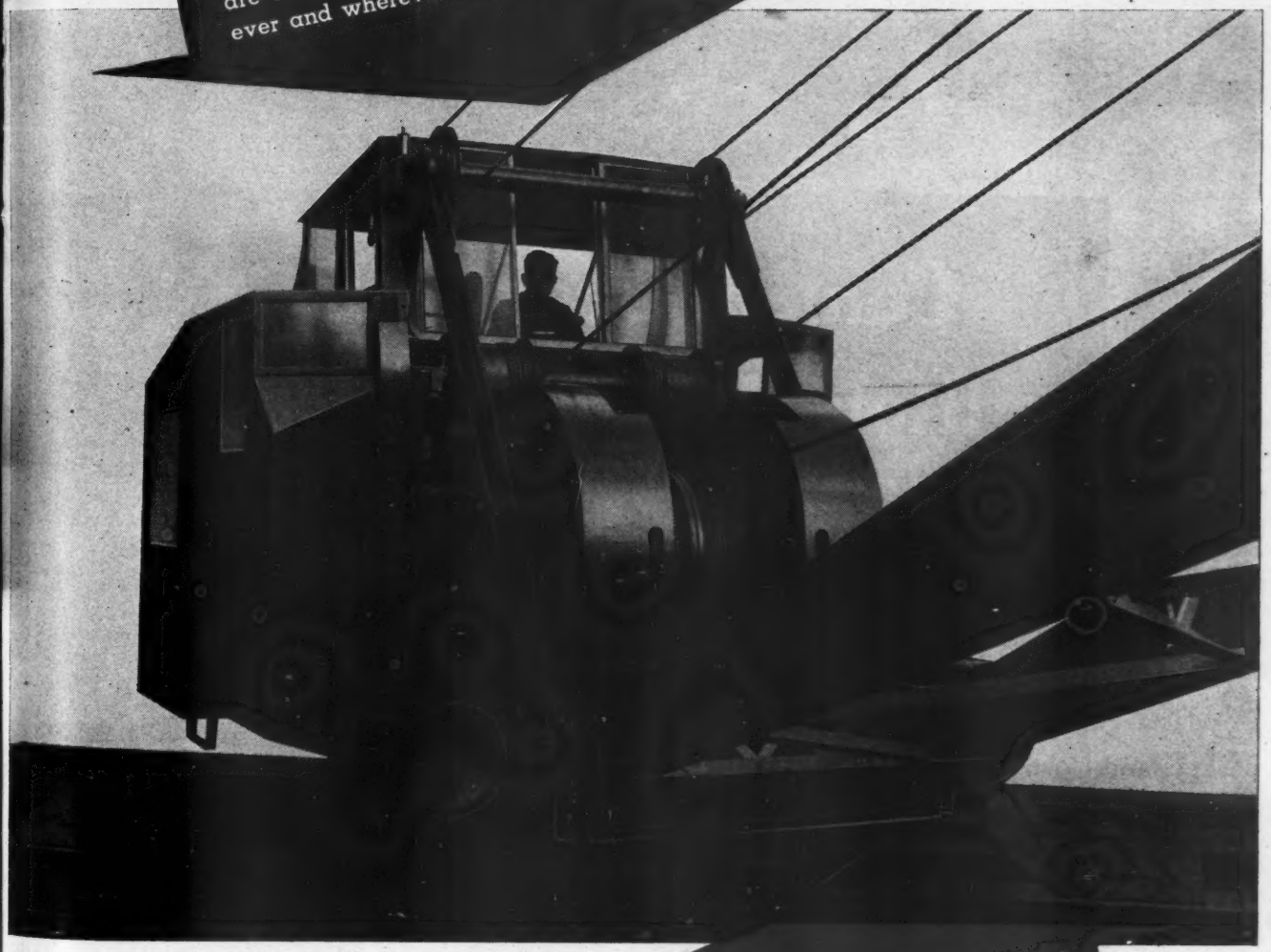
District Offices in: Baltimore · Boston · Chicago · Cincinnati · Cleveland · Denver · Detroit
Duluth · Minneapolis · New York · Philadelphia · St. Louis

Columbia Steel Company, San Francisco, *Pacific Coast Distributors* · United States Steel Export Company, New York

UNITED STATES STEEL

You can't accuse an I.B. Crane of Absenteeism!

In shipyards, steel mills, chemical plants and big war plants of every kind all over America, Industrial Brownhoist Cranes are doing steady, heavy work day after day without a letdown. Many I. B. Cranes are operating 24 hours a day. And it is rare indeed when an I. B. Crane has to take time out for repairs. No, you can't successfully accuse I. B. Cranes of absenteeism in this man's war. They're built to stand up—and they are standing up on their job—whenever and wherever it may be!



INDUSTRIAL BROWNHOIST
BUILDS BETTER CRANES

INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN • DISTRICT OFFICES: NEW YORK, PHILADELPHIA, PITTSBURGH, CLEVELAND AND CHICAGO

Spouting pipes show how water pumps through "mushy" subgrade under every passing wheel.

Grout injected into water pockets displaces water and fills voids—hardens and stiffens the subgrade.

Cement Grout will stiffen "mushy" tracks for war service

Portland cement grout, forced into water pockets and loose and yielding subgrade, will eliminate difficulties due to "mushy" tracks.

Pressure grouting stiffens the subgrade, prevents surge action of water, changes water pockets into load-spreading slabs and helps keep track in line and grade. No time need be wasted in slow orders. Thousands of man hours of maintenance time may be saved.

As practiced by railroads today, pressure grouting is done under traffic with no interruption to operations. Regular work crews can do the job. No special equipment is used—just tools and machines found in most railroad stores.

You can put your soft track in fighting order with pressure grouting. Ask us how other railroads are doing this job now.

PORTLAND CEMENT ASSOCIATION

Dept. A7c-23, 33 W. Grand Ave., Chicago 10, Ill.

BUY MORE WAR BONDS

PLAN AHEAD

FOR "CATERPILLAR" DEALER SERVICE

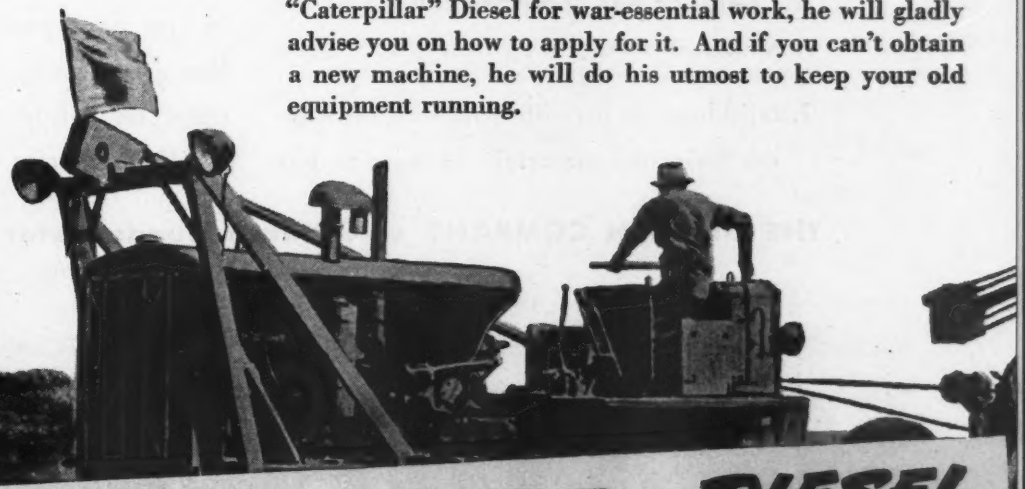
THESE WAR DAYS, all of us have to plan our time, just as we figure ahead so we won't be caught without gasoline—or butter—or shoes. It's even more important to anticipate the needs of your "Caterpillar" Diesel equipment.

Your "Caterpillar" dealer has a big job on his hands, keeping all the heavy equipment in his territory in good running order. On the other hand, it's vital to you that your machine lose as few working hours as possible.

A little forethought now may save you a lot of time and expense. Take a look at your calendar. Figure when you will best be able to spare your "Caterpillar" Diesel. Then get in touch with your "Caterpillar" dealer and arrange a date beforehand. A quick inspection will enable him to tell whether a complete overhaul is needed—whether any parts must be replaced—or whether minor adjustments will answer the purpose. If parts are necessary and orders are placed well in advance, he'll be ready to give you prompt service on the day you've set.

Sturdy stamina is built into every "Caterpillar" Diesel. But even such a machine needs service when it's worked overtime month after month. Make advance provision for that service—don't put it off until the eleventh hour. Being forehanded in such matters helps to spread the available materials and man-hours fairly among all owners. It's one way to win the war.

Your "Caterpillar" dealer will do his best for your equipment. And his "best" is mighty good. Modern shop practices and precision tools enable him to make service adjustments and repairs with the least expenditure of money and war-needed metals. If you need a new "Caterpillar" Diesel for war-essential work, he will gladly advise you on how to apply for it. And if you can't obtain a new machine, he will do his utmost to keep your old equipment running.



CATERPILLAR DIESEL

REG. U.S. PAT. OFF.

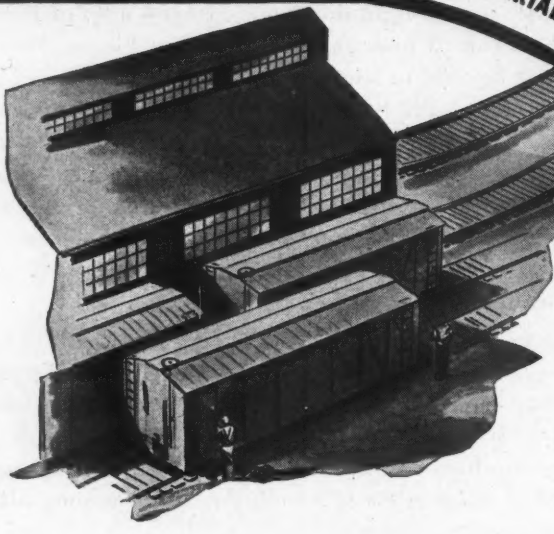
CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

TO WIN THE WAR: WORK—FIGHT—BUY U. S. WAR BONDS!

A DOUBLE TRACK to Speed Painting Materials to You

A PAINT LINE MADE FROM NON-CRITICAL MATERIALS

EIGHT STRATEGIC PAINT LABORATORIES



Specify Glidden Paints for those essential car painting requirements and you can short cut delays on that procurement problem. For Glidden has complete control of the two factors needed for prompt deliveries.

1. Glidden can provide you with railway-car painting materials because it has developed a line of wartime finishes *made from non-critical materials.*

2. These paints are being made at *eight* strategically-located manufacturing plants, one of which is *near your shops.* And each of these Glidden plants is equipped with a research laboratory and a staff of paint technicians who are available for overnight assistance to you on painting problems.

If you have paint procurement worries that are robbing you of precious hauling time, try Glidden's double track paint facilities. Write Glidden headquarters.

THE GLIDDEN COMPANY • National Headquarters: Cleveland, Ohio

Factories or Branches in Principal Cities

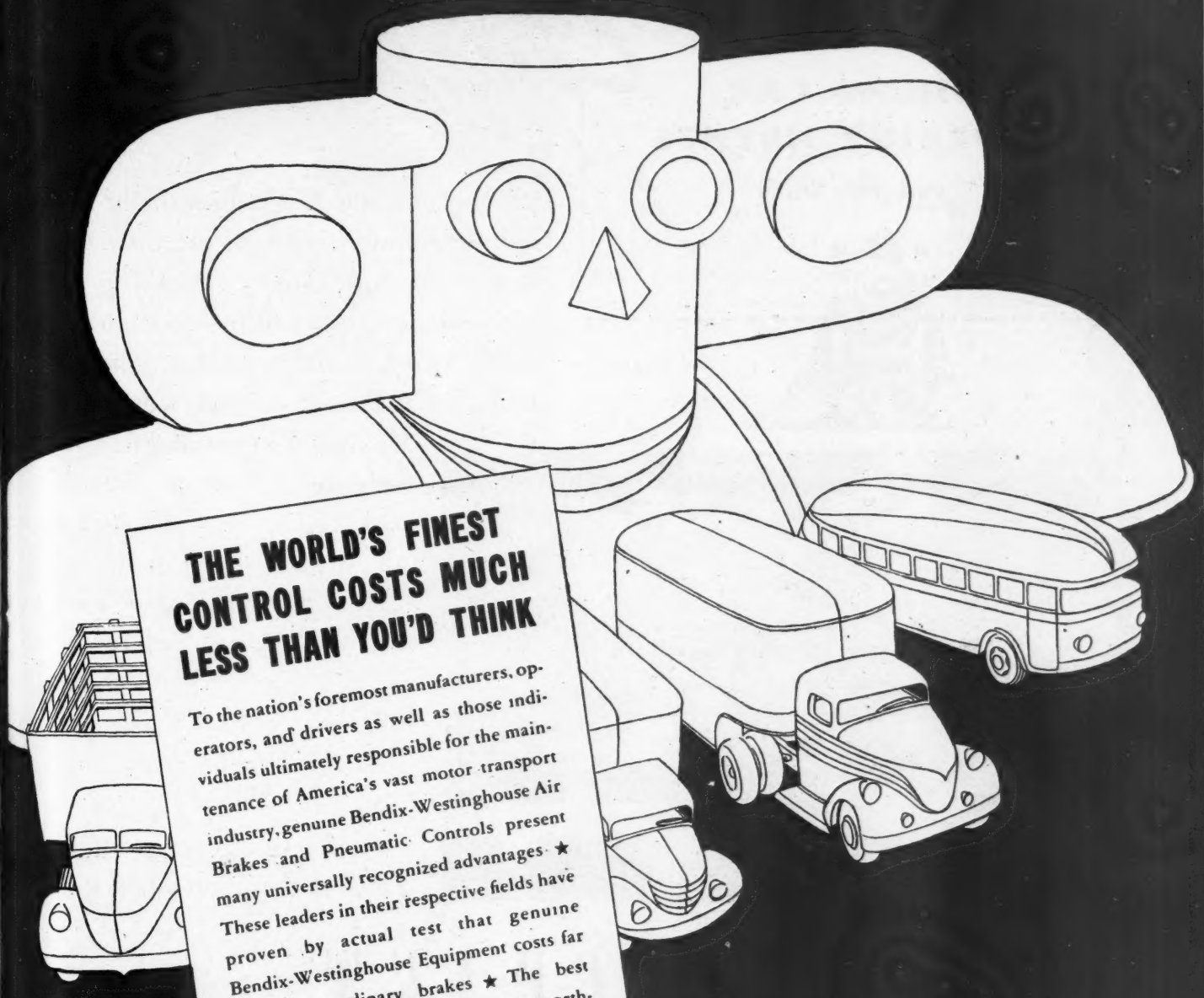
GLIDDEN

Everywhere on Everything

Reg. U. S. Pat. Off.
TIME-TESTED
PAINTS · VARNISHES · LACQUERS · ENAMELS

GLIDDEN PRODUCTS CARRY THIS FAMOUS MARK OF QUALITY

ECONOMY



THE WORLD'S FINEST CONTROL COSTS MUCH LESS THAN YOU'D THINK

To the nation's foremost manufacturers, operators, and drivers as well as those individuals ultimately responsible for the maintenance of America's vast motor transport industry, genuine Bendix-Westinghouse Air Brakes and Pneumatic Controls present many universally recognized advantages. ★ These leaders in their respective fields have proven by actual test that genuine Bendix-Westinghouse Equipment costs far less than ordinary brakes ★ The best way to cut yourself in on the many worthwhile savings this modern system of control has to offer is to try a set of genuine Bendix-Westinghouse Air Brakes on your toughest run. Consistently excellent performance will convince you that anything short of this instant, positive control is an expense you can ill afford in these days of stringent economies.

BENDIX-WESTINGHOUSE
AUTOMOTIVE AIR BRAKE
COMPANY
ELYRIA, OHIO

BENDIX-WESTINGHOUSE AIR BRAKES

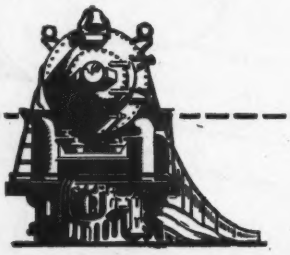
AN ORGANIZATION WHOSE UNDIVIDED EFFORT AND COMPLETE RESOURCES
ARE DEVOTED TO YOUR CONVENIENCE AND SAFETY

TO AMERICAN RAILROADS

and Especially

DINING CAR SUPERINTENDENTS

and their Staffs



Congratulations

for their outstanding achievement in providing dining service to meet *the heaviest demand in travel history!* Working under the most severe handicap—food rationing, supply shortages, emergency schedules—Dining Car executives and workers have succeeded in maintaining standards of efficiency, cleanliness and food quality unmatched in any other country in the world.

Rosemary is proud to have been called upon by leading railroads to contribute to their dining services the Table Napery so essential to this record-making operation. We pledge our continued cooperation in supplying railroad requirements for . . .

Photo courtesy of Pennsylvania Railroad

TABLECRAFT*

ROSEMARY BASCO

CLOTHS · NAPKINS · TOPS · DAMASK

MADE *RIGHT* IN AMERICA

ROSEMARY PRODUCTS

Rosemary

SALES

A DIVISION OF SIMMONS COMPANY

Dept. 3-B—40 WORTH ST., NEW YORK 13, N. Y.

Tablecraft is recommended by and marketed exclusively through wholesale distributors from coast to coast.

*Reg. U. S. Pat. Off.

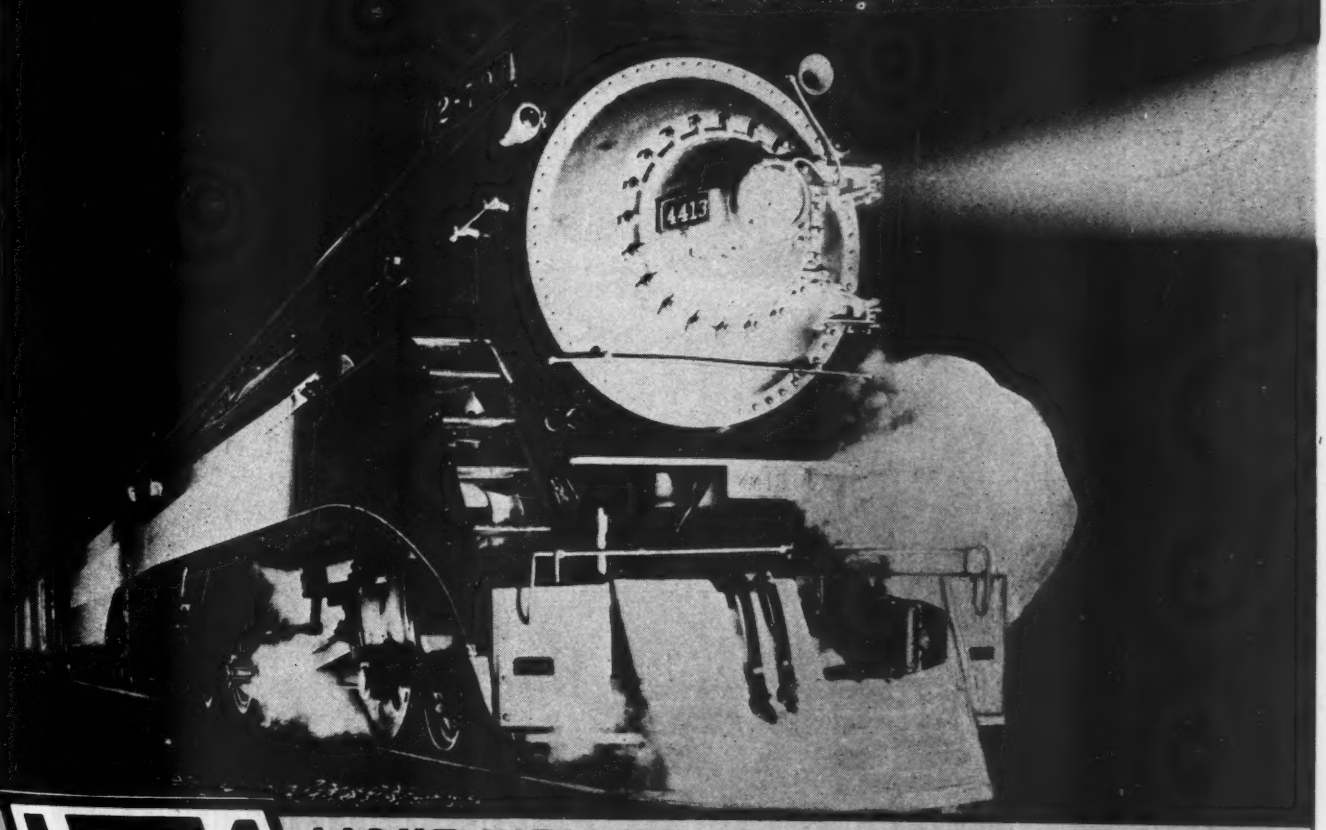
Save MATERIALS AND FUEL

BEHIND the transportation achievements of the railroads is a big story of research, design and scientific production of parts for cars and locomotives which would produce maximum mileage between renewals.

L.F.M. Light Weight Alloy Steel Pistons and Combination, Universal, Sectional Bull and Packing Rings have contributed greatly to this achievement.

L.F.M. Pistons are approximately 50% lighter than the conventional type—this means reduced frictional wear. L.F.M. Combination Sectional Packing is noted for its high mileage and pressure tight performance. Applications on many leading railroads are helping to conserve materials and fuel.

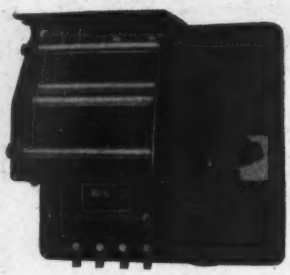
THE LOCOMOTIVE FINISHED MATERIAL CO.
ATCHISON, KANSAS
NEW YORK CITY CHICAGO, ILLINOIS



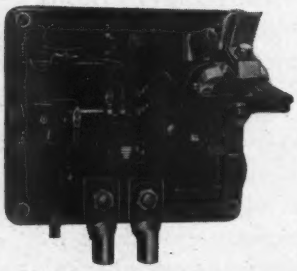
LFM
LIGHT WEIGHT ALLOY STEEL PISTONS
and Combination Universal Sectional
BULL AND PACKING RINGS

ABUNDANT POWER

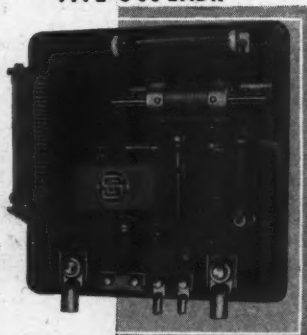
for the Duration



TYPE S 1050 E



TYPE S 30 EADR



TYPE SM 150 EA

Many cars requiring a large amount of power, available at reasonable train speed, for lighting and air-conditioning, are equipped with this Safety Company equipment — arranged for underframe mounting and adaptable to any type of drive or mounting.

Generators of 10 kw or 20 kw output delivered at a train speed of 30 miles per hour with the driving apparatus ordinarily available.

The Generator voltage and output is regulated by a dependable carbon pile regulator which assures full generator capacity and affords ample protection to all parts of the equipment; a carbon pile load regulator assures proper lamp voltage.

Complete equipment includes a reverse current relay with which the generator takes the load from the battery as soon as the generator voltage equals that of the battery. This results in the generator supplying the load for the longest possible period.

TYPE "G"

BUY MORE WAR BONDS

ARMY E NAVY

THE SAFETY CAR HEATING AND LIGHTING COMPANY, INC.

NEW YORK CHICAGO PHILADELPHIA ST. LOUIS

SAN FRANCISCO BOSTON MONTREAL

SHOCK ABSORBERS and *Sway Bars*

RAILWAY AGE

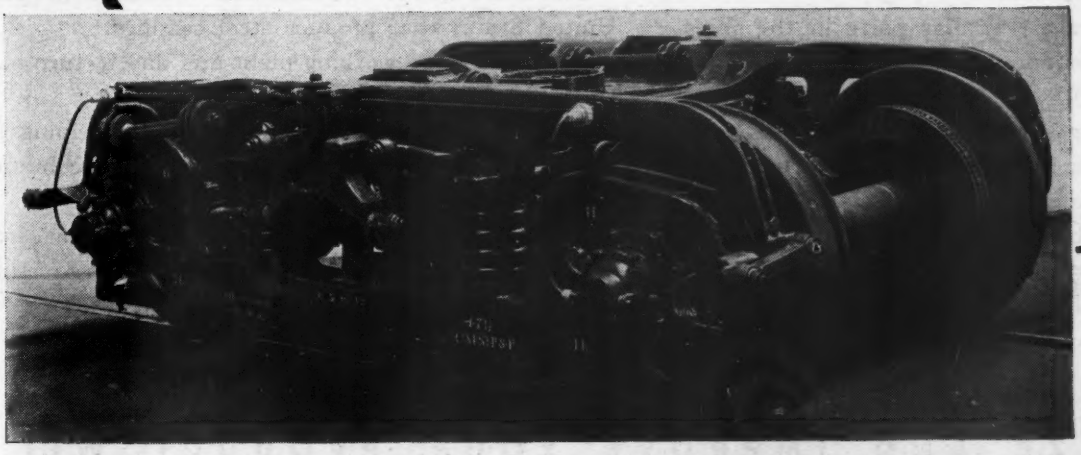
Wear and tear on equipment is now receiving consideration, (these plans may well be called preventive measures) and the results attained provide evidence that the plan is sound economically.

Vast amounts of money have been wasted, because trucks were not until recently equipped with ***Shock Absorbers*** and Sway Bars.

Violent forces can be controlled by the installation of Shock Absorbers and Sway Bars on trucks.

Unchecked forces quickly rack the roadbed, the tracks, the trucks and frequently cause accidents.

Pre-peace time can be wisely spent in planning and engineering—new post-war conditions will demand modern equipment, that will save dollars for the R. R. Company.



★

Our engineers will gladly work with you, so that the best results may be obtained.

MONROE

MONROE AUTO EQUIPMENT CO. . . MONROE, MICH.

"CHICKEN IN THE ROUGH"

Not much meat on these "chicken skeletons" of hard steel! But they are important to you, because they are vital parts of the machine that builds your roads.

There are thousands of odd-shaped pieces of steel, in the "works" of your car, in the engines and coaches of the trains you ride, in the trucks that haul your groceries, the machines that create your electricity, the appliances in your home.

And today, there are similar parts in the ships, tanks, planes, guns and trucks that make up our war machine.

These steel parts are made by a process called CASTING—pouring molten metal into a mold and allowing it to cool and harden. Any kind of steel can be cast, and almost any shape can be molded—from a few ounces in size to hundreds of tons.

Think of the job it would be to whittle one of these "chickens" out of solid metal, or to make one by joining many little bits of steel together!

Perhaps you never will buy a steel casting as such, but steel castings serve you every day, by making possible the manufactured products you use and live with—and making them quicker, cheaper and better.

. . .

There are about two hundred foundries in The United States that produce steel castings.

Today they are working night and day to turn out the military tools of war.

Tomorrow, they will resume the job of helping to make the things that contribute to your comfort, your convenience, your health, your safety.

The manufacture of steel castings is a typical forward-looking American industry, an important instrument of our American way of living. Steel Founders' Society of America, Cleveland, Ohio.

MODERNIZE AND IMPROVE YOUR PRODUCT WITH

STEEL CASTINGS

THE KID IN UPPER 4

TRAVELS, ASSURED . . .

with SPERRY RAIL SERVICE

The New York New Haven and Hartford

Along with the "Kid in Upper 4" hundreds of thousands like him are travelling night and day with speed and assurance as America's railroads move men and material to take record-breaking loads to their destination—on schedule!

A leader in the rail transportation field, the New York, New Haven and Hartford has geared its entire operation to the needs of war and Victory.

And with this drive for Victory, Sperry Detector Car crews, acting as G-men of the rails, are busier than ever on a dawn-to-dusk schedule as they combine research, field engineering and experience with the most efficient rail testing equipment in the world to permit America to travel with ASSURANCE.

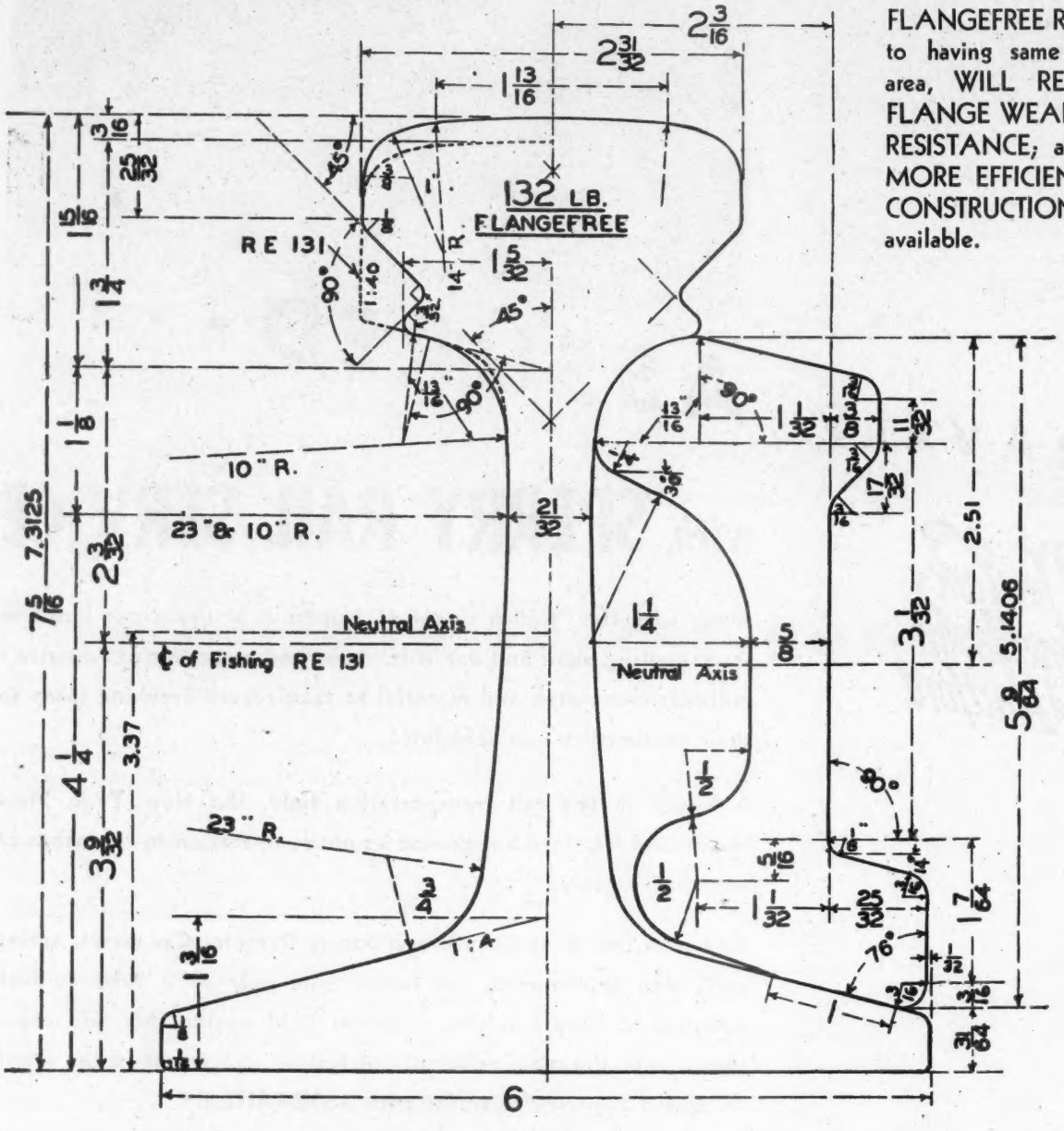
SPERRY'S FLEET of 17 Detector Cars, with the most efficient rail testing equipment in the world, has tested over **207,000** miles since Pearl Harbor.

SPERRY
Rail Service

HOBOKEN, N. J. • CHICAGO, ILL.

FLANGEFREE RAIL

With LESS STEEL FOR RAIL REPLACEMENT comes the realization of a better rail condition where HEADFREE rail with its 30% GREATER AREA OF WEAR has been laid.



FLANGEFREE RAIL, in addition to having same increased wear area, WILL REDUCE WHEEL FLANGE WEAR AND TRAIN RESISTANCE; also provides for MORE EFFICIENT JOINT-BAR CONSTRUCTION than heretofore available.

Pat'd U. S. A. and Canada

THERE is no greater post-war economy for your present consideration than the adoption of FLANGEFREE RAIL and JOINT BARS which our license agreement enables you to purchase from the mills.

THE THOMSON RAIL CORPORATION OF NEW YORK

Pennsylvania Building, Philadelphia, Pa.

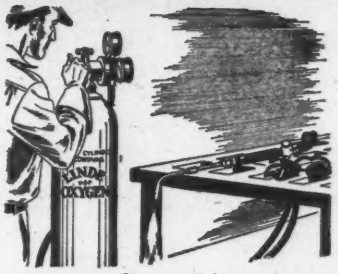
Check These Points!

Aid War Production by Conserving Vital Materials

Welding Rods

Do You . . .

- Use up stub ends?
- Avoid excessive weld reinforcement?
- Hold to close tolerances bronze deposits subsequently to be machined?
- Use steel or iron rods in place of bronze rods whenever possible?



Gases

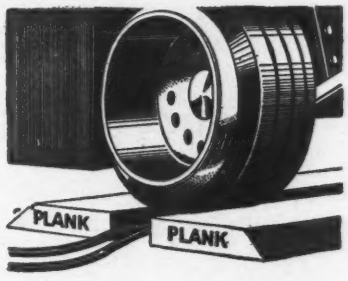
Do You . . .

- Turn off your blowpipes when not in use?
- Avoid use of oversize tips and nozzles?
- Avoid use of excessive gas pressures?
- Test for and repair leaky hose and connections?
- Use up partly full cylinders before drawing on full cylinders?
- Return empty cylinders promptly?

Apparatus

Do You . . .

- Turn in apparatus immediately when it is in need of repair?
- Treat your blowpipes, regulators, and other equipment as the precision-made tools that they are?
- Operate equipment in accordance with the instructions?
- Use apparatus only for the purpose for which it is intended?
- Keep tips and nozzles clean?



Hose

Do You . . .

- Keep hose out of the path of heavy vehicles?
- Keep it free from oil and grease?
- Use it so as to avoid kinks?
- Test it for leaks, and repair with approved splices?
- Keep hose clear of sparks and hot slag?

Reprints of this advertisement for distribution to your welding and cutting operators or for bulletin board use will be sent on request.

THE OXWELD RAILROAD SERVICE COMPANY
Unit of Union Carbide and Carbon Corporation

UCC

Carbide and Carbon Building — Chicago and New York

SINCE 1912 THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

Sellers Hi-Pressure Cleaning Jet Cuts Hardened Dirt

The Sellers Hi-Pressure Cleaning Jet works rapidly and positively, cutting hardened dirt and grease from locomotive parts and from inaccessible corners. It has a record of cutting cleaning time drastically and doing the job more thoroughly than any other cleaning system. Time of cleaning has been cut amazingly in many prominent yards.

FLEXIBLE. Jet temperature, pressure and amount of solvent used may be varied at will.

ECONOMICAL. A minimum amount of solvent may be fed at a uniform rate. No waste.

FAST. Flexibility and ease of control assures the most efficient jet for thorough, rapid cleaning.

SIMPLE. No pumps, preheaters, check valves, compressors or air lines, etc. Not a single moving wearing mechanism.

COMPACT. A self-contained unit requiring a space of only 18" by 30".

RUGGED. Strong, well built to withstand hard usage. Needs no protection from the elements.

ADAPTABLE. For any cleaning, disinfecting, deodorizing, or exterminating job where the proper cleaning or sterilizing agent, in either liquid or solution form, may be used with water.

WILLIAM SELLERS & CO., INC., PHILADELPHIA, PA.

ARMY E NAVY

Sellers

Eventually You'll Have the Best so why not have the HANNA *now?*

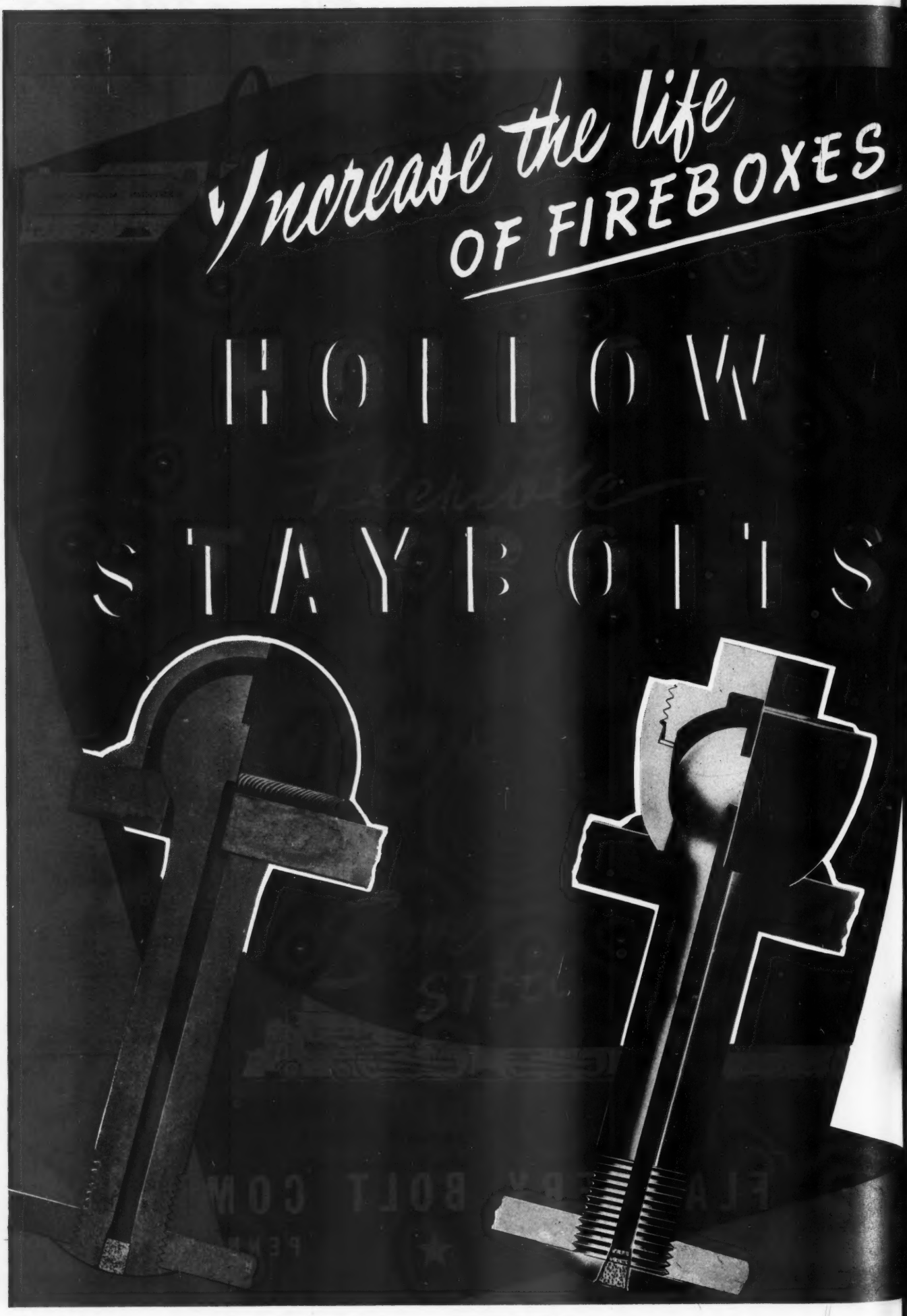
THE list of locomotives equipped with HANNA STOKERS is increasing very rapidly. Naturally, there must be a reason and that reason is that the HANNA SYSTEM has all the essentials which assure complete combustion, sustained boiler horse-power and maximum fuel economy.

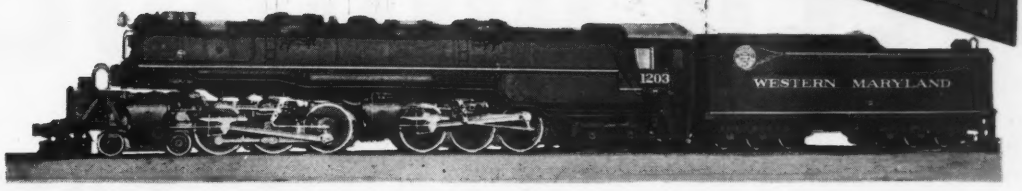
The exclusive features include a balancing head that distributes the coal over the ledge in proper proportion so as to maintain maximum steam pressure and maximum horse-power with a minimum of coal.

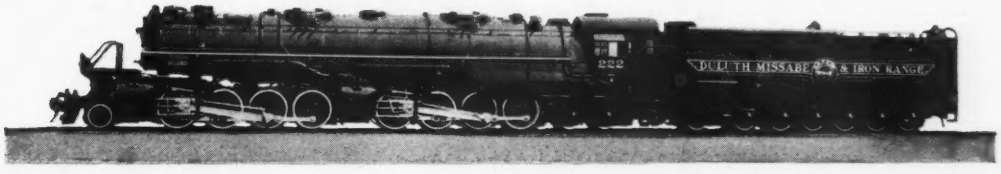
The HANNA SYSTEM embodies the principle of uniform blast pressures over the entire grate area—then directs the fuel to the jets. This gives the flexibility of hand-firing, but with added scientific precision.

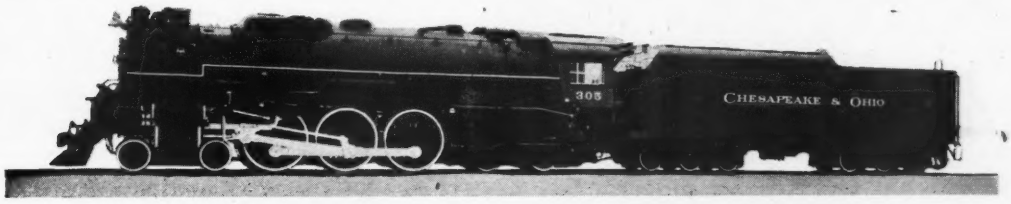
HANNA STOKER

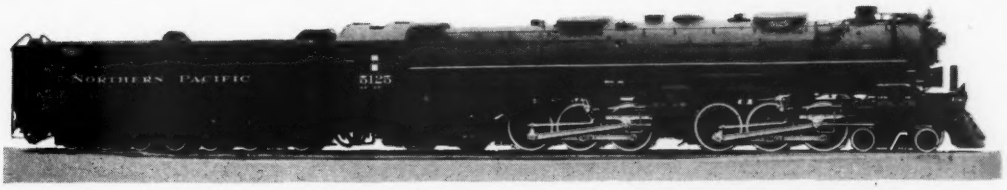
HE HANNA STOKER COMPANY CINCINNATI OHIO

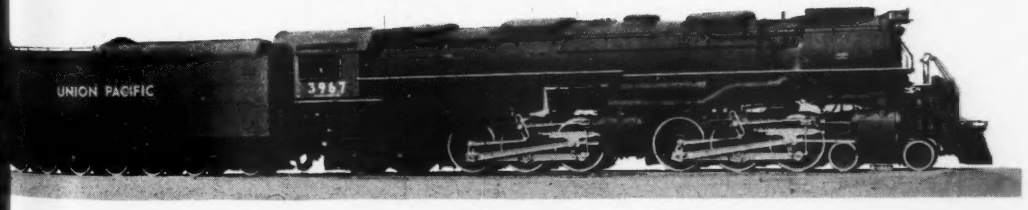

Increase the life
OF FIREBOXES
HOLLOW
STAYBOLTS











FLANNERY BOLT COMPANY

VILLE ★ PENN

NEED SNUBBERS?

For Tank Cars?

For Other Equipment?

Style A-6-A Volute Snubber Spring—embodying all improvements and redesigned for easy inspection.

As of the date this advertisement is written, we can accept some orders for

HOLLAND
Style A-6-A
VOLUTE SNUBBER SPRINGS

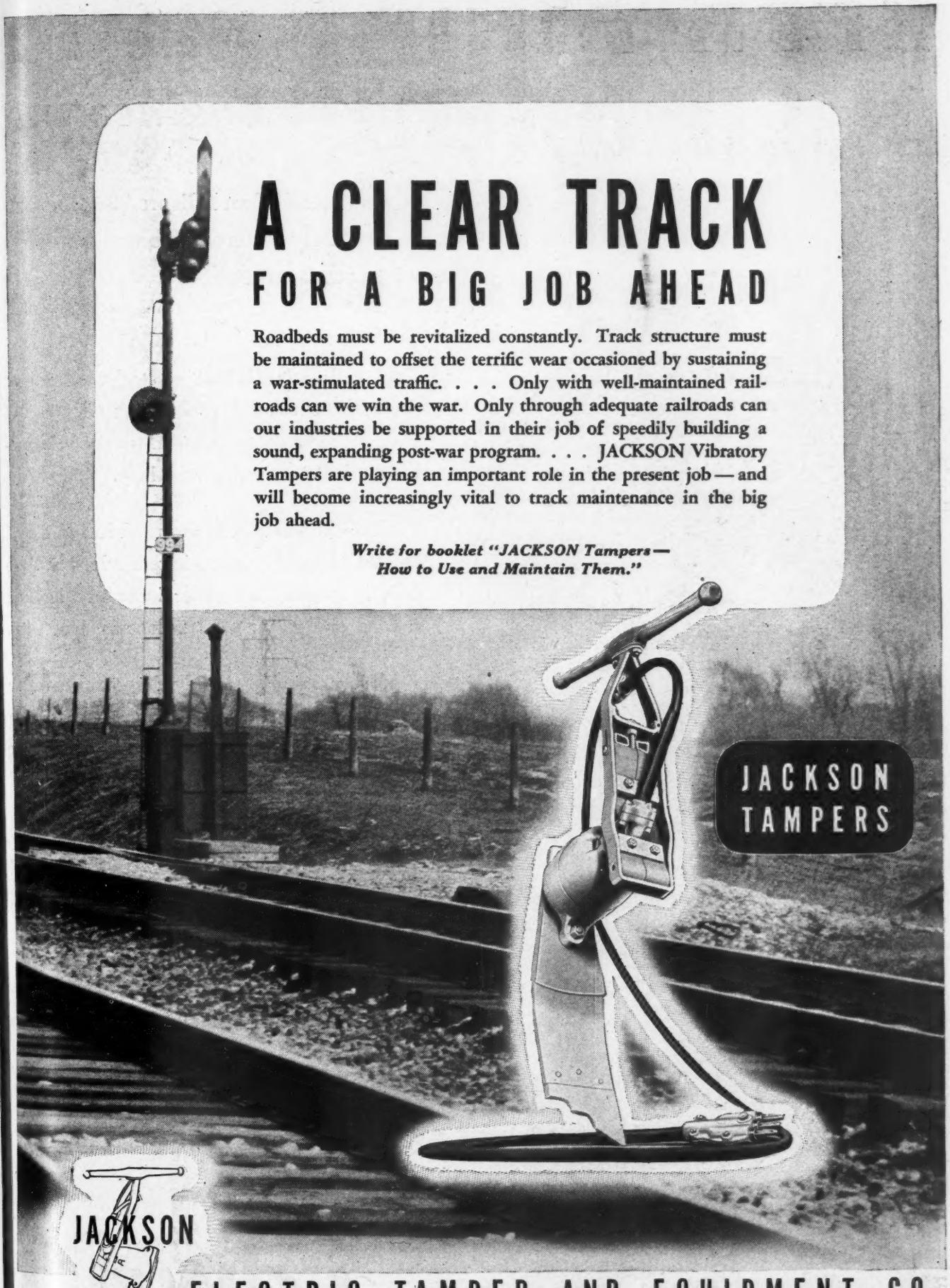
For Early Delivery

HOLLAND COMPANY
332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

A CLEAR TRACK
FOR A BIG JOB AHEAD

Roadbeds must be revitalized constantly. Track structure must be maintained to offset the terrific wear occasioned by sustaining a war-stimulated traffic. . . . Only with well-maintained railroads can we win the war. Only through adequate railroads can our industries be supported in their job of speedily building a sound, expanding post-war program. . . . JACKSON Vibratory Tampers are playing an important role in the present job — and will become increasingly vital to track maintenance in the big job ahead.

Write for booklet "JACKSON Tampers — How to Use and Maintain Them."



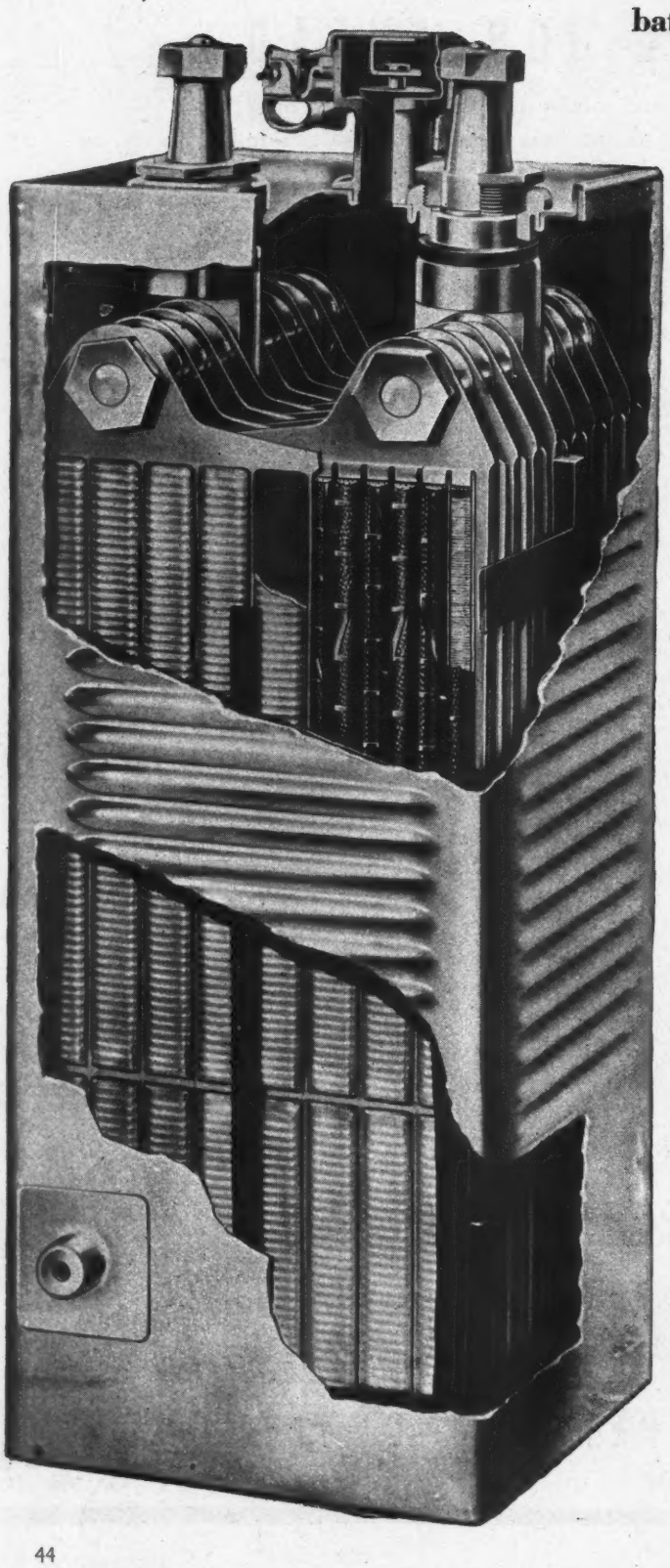
JACKSON

ELECTRIC TAMPER AND EQUIPMENT CO.

LUDINGTON . . . MICHIGAN

For Newcomers in Railway Electrical Engineering

This is a single cell of an Edison Alkaline Battery. It is entirely different from the storage battery in your automobile.



This Edison cell is built of steel throughout. Its alkaline electrolyte is a preservative of steel. Its most distinctive performance characteristic is its great dependability.

Batteries of these cells are used in industrial trucks, in railway cars, in mine locomotives and, in general, wherever insurance against sudden and unexpected failure is necessary.

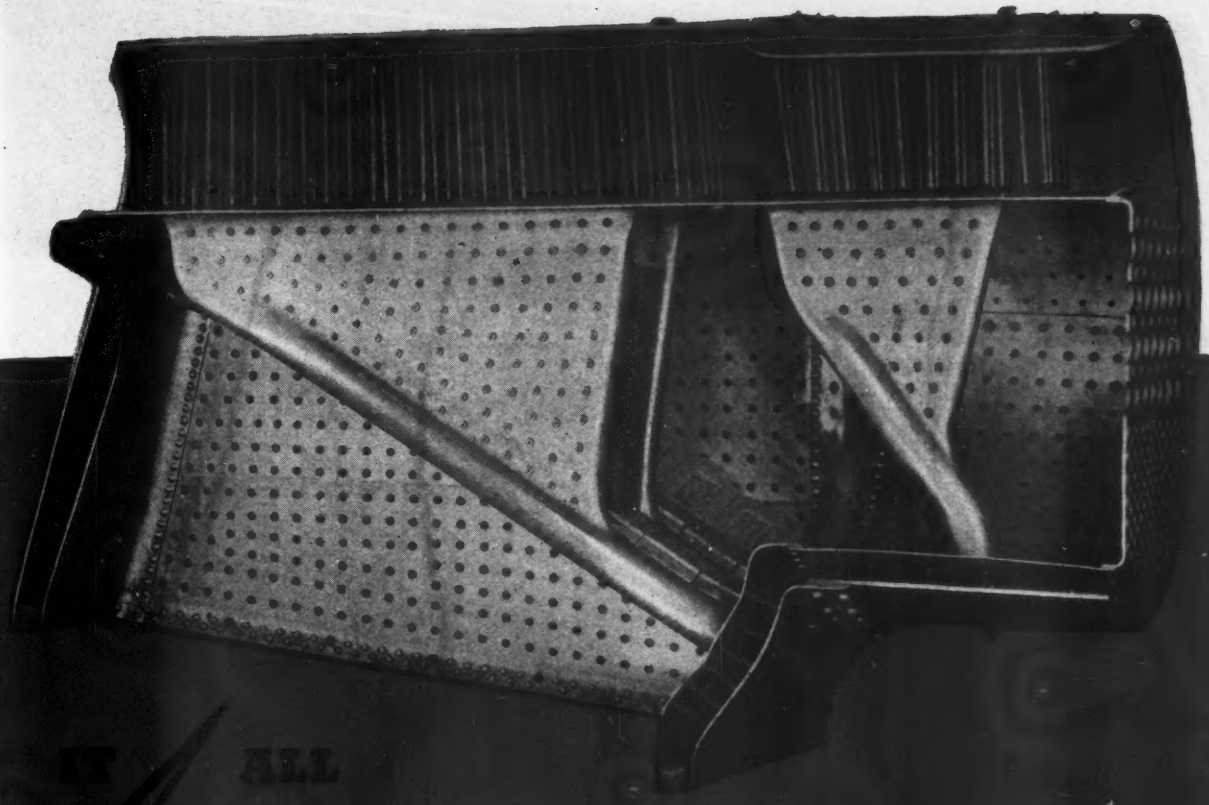
This insurance is doubly important today because delays in essential war production cannot be tolerated. The durability of these batteries also makes them long-lived and therefore economical to operate.

The Edison Alkaline Battery cell, as pictured here, is precisely and ruggedly fabricated. In the days of slogans it was tagged: "Built like a watch—rugged as a battleship."

Millions of these cells are now in use. If you want the story of this ingenious invention of Mr. Edison's, send for Booklet EAB 10. Address Edison Storage Battery Division of Thomas A. Edison, Inc., West Orange, N. J.

Edison

ALKALINE BATTERIES



NICHOLSON THERMIC

SYPHONS produce *More* boiler capacity with *Less* WEIGHT *Less* STEEL *Less* COST

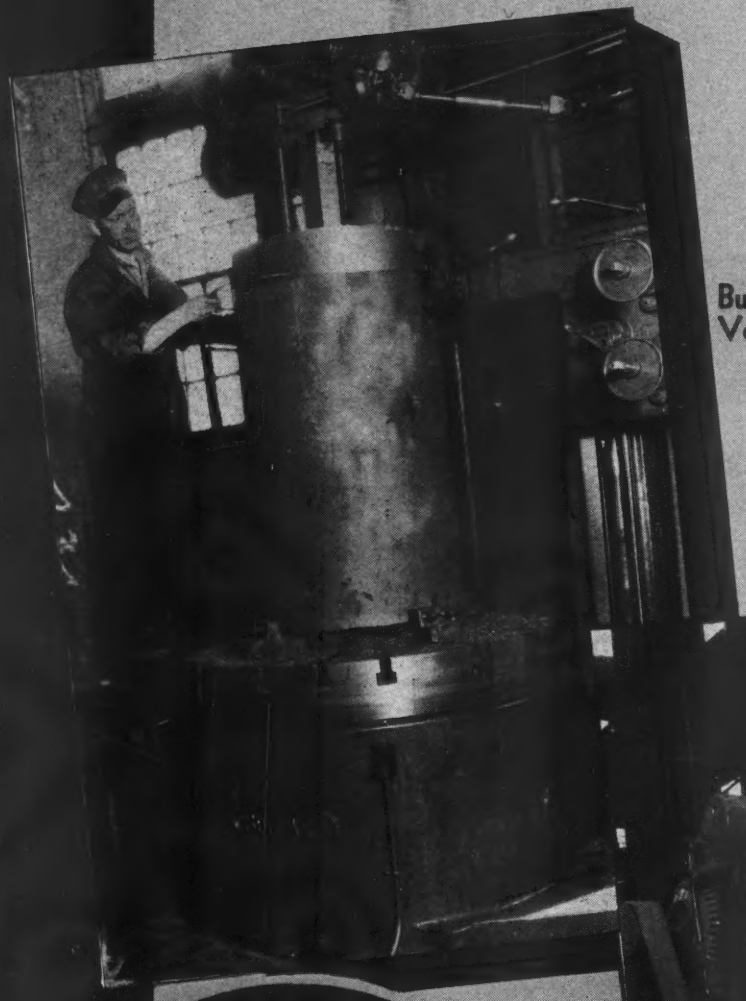
. . . and for equivalent results assure greater economy in service and maintenance than larger boilers without Syphons, PLUS SAFETY FROM BOILER EXPLOSIONS.

Locomotive Firebox Company

NEW YORK CHICAGO MONTREAL

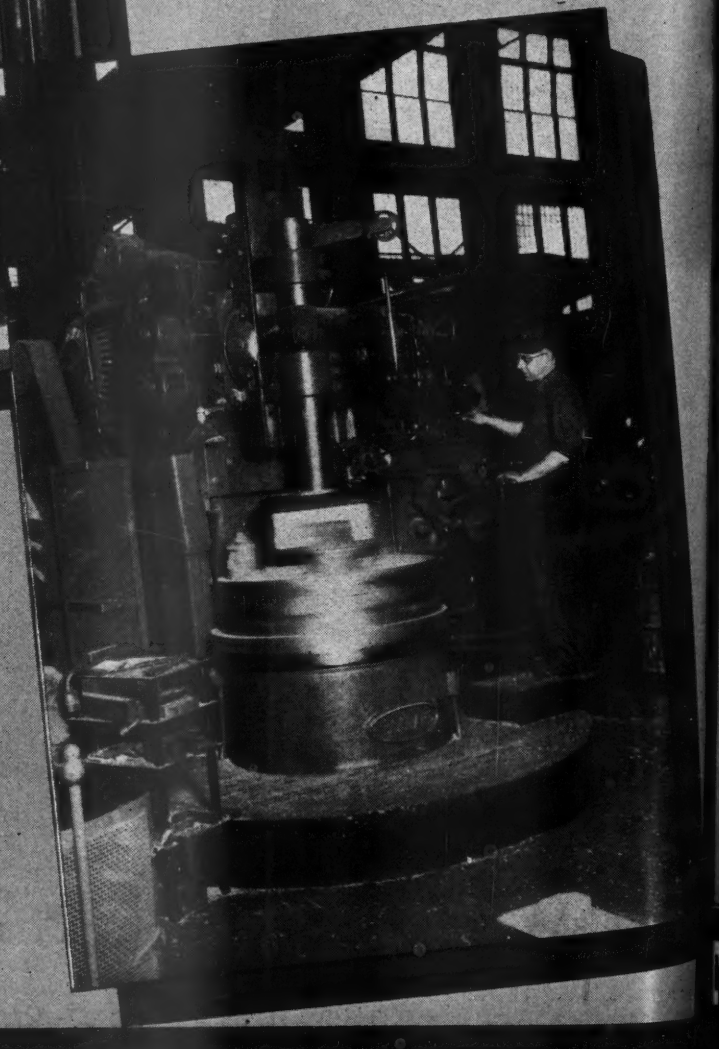
PROMPT

FOR THE



Bullard High Bed 54"
Vertical Turret Lathe

Bullard Driving
Box Borer



BULLARD
R.R. Shop
UNITS

DELIVERY

TRANSPORTATION FRONT

Standard 36" Vertical Turret Lathe Machining Pistons

BY working night and day we are proud to announce that we have exceeded the production requirements of the government and defense industries. It has been a tough grind, but every member of the BULLARD organization has stuck to the job faithfully. In spite of constantly increasing demand BULLARD Units have been flowing out of the plant ahead of delivery schedules.

At last the railroad's turn has come and we have Vertical Turret Lathes—all styles and sizes, including the 74" Cut Master, for prompt delivery. Here is your opportunity to meet those requisitions from your Mechanical Department. Write us now for deliveries.

42" Cut Master Machining Rod Bushings

THE BULLARD COMPANY

BRIDGEPORT 2, CONNECTICUT

Doing a *tough job* and doing it well

• Today every department on a railroad is calling the purchasing agent for deliveries.

A busy life for the "P. A", but he and his organization are keeping the railroads supplied with the vast amount of material necessary to keep them running efficiently.

He is carrying on, as usual . . . doing a tough job . . . *well.* That is the spirit of the great system of American railroads.

We salute the purchasing and stores department.

We offer you every co-operation in meeting the requirements of today . . . both in material and service.

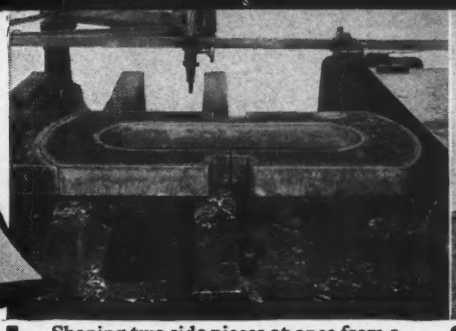
Pullman-Standard CAR MANUFACTURING CO.

CHICAGO · NEW YORK · CLEVELAND · WASHINGTON, D. C. · PITTSBURGH · BALTIMORE · BIRMINGHAM · WORCESTER, MASS

San Francisco Sales Representative, Latham McMullin

When you must make your own DRIVING Box

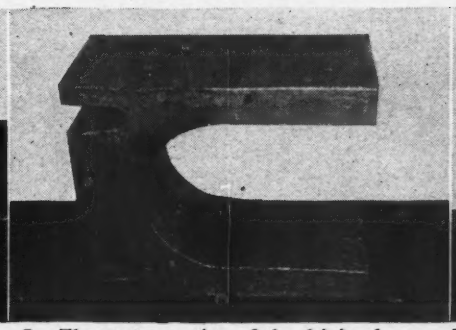
HERE'S HOW to do it!



1 Shaping two side pieces at once from a steel bloom—by flame cutting.

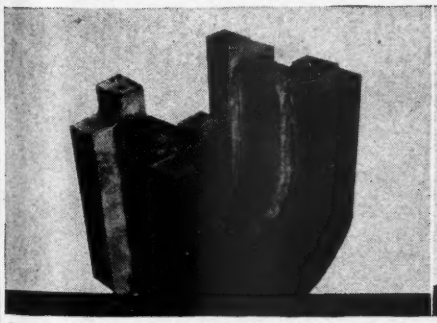
2 Center part of the flame cut piece is salvaged.

3 A close-up view of one of the two side pieces, shown in photograph 1.

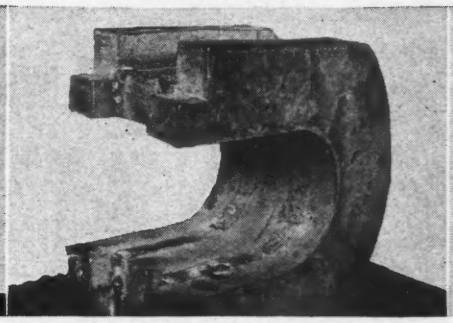


4 The center section of the driving box is flame cut to shape and size.

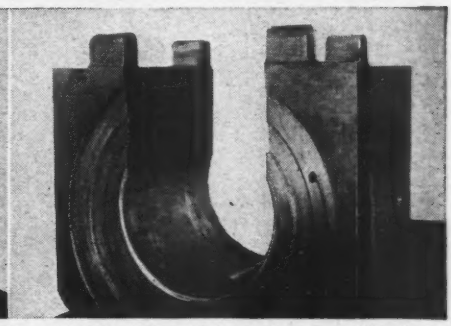
5 The three sections of the driving box, ready to be veed out for welding.



6 Here the three pieces have been veed and tack welded together.



7 Showing the driving box completely welded, ready for machining.



8 Fabricated driving box—machined and ready for crown brass.

Shop fabrication of driving boxes is only one of the many ways in which flame cutting and welding, and arc welding, are assisting the railroads in these days of replacement shortages. Airco's Applied Engineering Department will be glad to assist you in getting the full benefit from your cutting and welding equipment.

Air Reduction

General Offices: 60 EAST 42nd ST., NEW YORK 17, N. Y.

IN TEXAS: MAGNOLIA-AIRCO GAS PRODUCTS CO.

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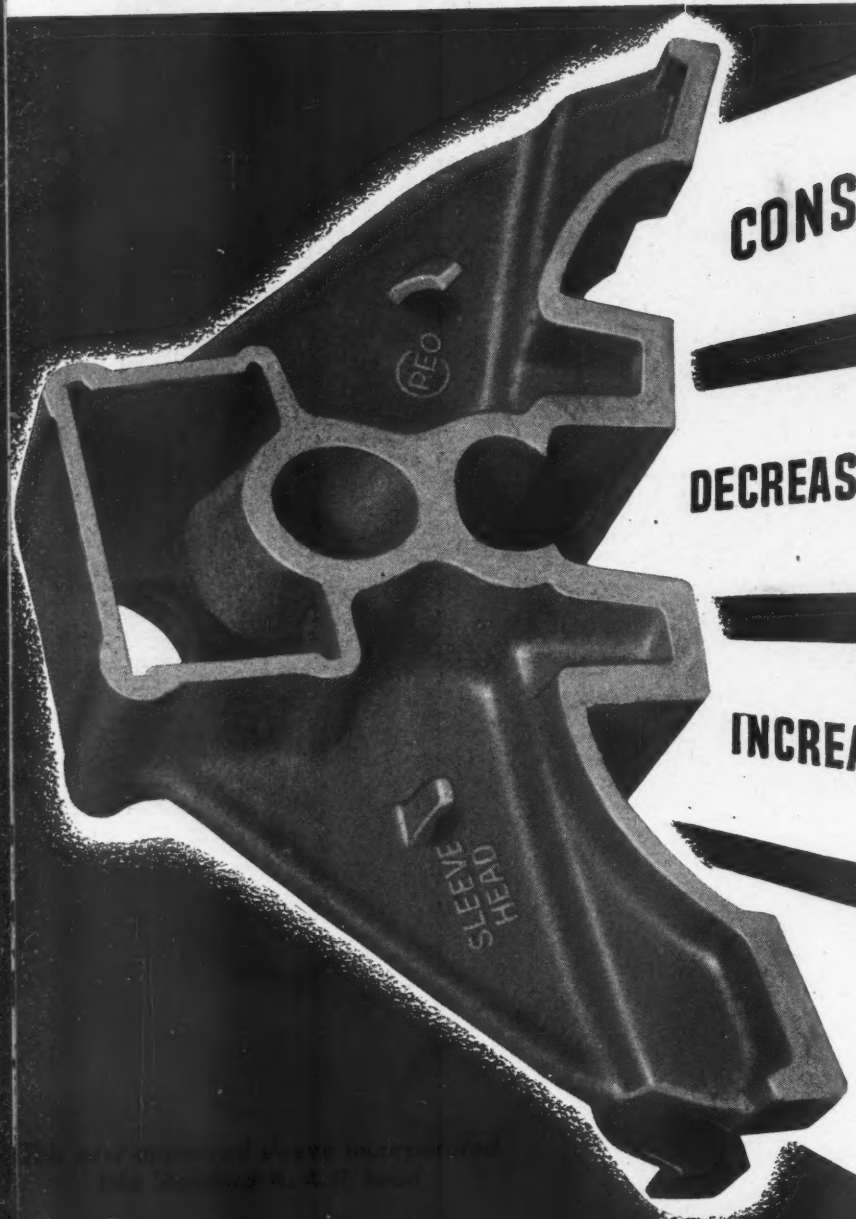
AIRCO

WILSON

IDLE CYLINDERS ARE PRODUCTION SLACKERS: *Keep 'em rolling for victory!*

SLEEVE BRAKE HEAD



CONSERVES MATERIALS

DECREASES BRAKE BEAM FAILURE

INCREASES TENSION-ROD LIFE

REDUCES TRAIN DELAYS

Over 2,500,000 Sleeve Heads in service is evidence of their value

CHICAGO RAILWAY EQUIPMENT CO.

McCormick Building, Chicago

MAKERS OF *History*—

Chicago and North Western—Union Pacific "City of Denver" and "City of Los Angeles" meeting in Chicago

Here are makers of railroad history . . . streamliners that regularly maintain whirlwind schedules on two of America's longest, toughest runs. A 1047-mile dash daily between Chicago and Denver . . . a 2299-mile race between Chicago and Los Angeles every third day! These are triumphs of Chicago and North Western — Union Pacific operation of crack fleets.

Back of this success is Diesel dependability . . . and *correct* lubrication. Chicago and North Western and Union Pacific use Sinclair Gascon Oil for lubrication of the Diesel locomotives hauling these outstanding trains.

Sinclair Gascon gives cool engine operation with absence of deposits that cause ring sticking and carbon troubles. Its wear-prevention qualities hold down expensive replacements. Let our Engineers tell you more about the advantages of using Sinclair Gascon Oils.

SINCLAIR RAILROAD LUBRICANTS

SINCLAIR REFINING COMPANY, (INC.), RAILWAY SALES, NEW YORK • CHICAGO • SAINT LOUIS • HOUSTON

STORES

MOVE FASTER THIS WAY

Storekeepers have learned that they can meet today's demands for greater speed in handling stores with Yale Materials Handling Machinery. These modern handling tools make lifting and hauling tasks easier . . . free additional men and women for more productive operations.

THE YALE & TOWNE MANUFACTURING CO.
PHILADELPHIA DIVISION • PHILADELPHIA 24, PA., U. S. A.

Makers of Materials Handling Machinery,
Hand Lift and Electric Industrial Trucks—Hand Chain and Electric Hoists

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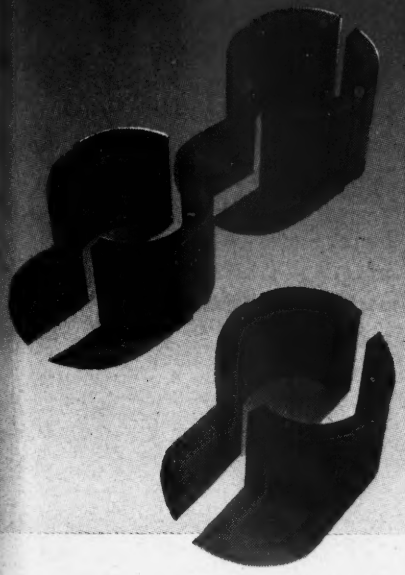
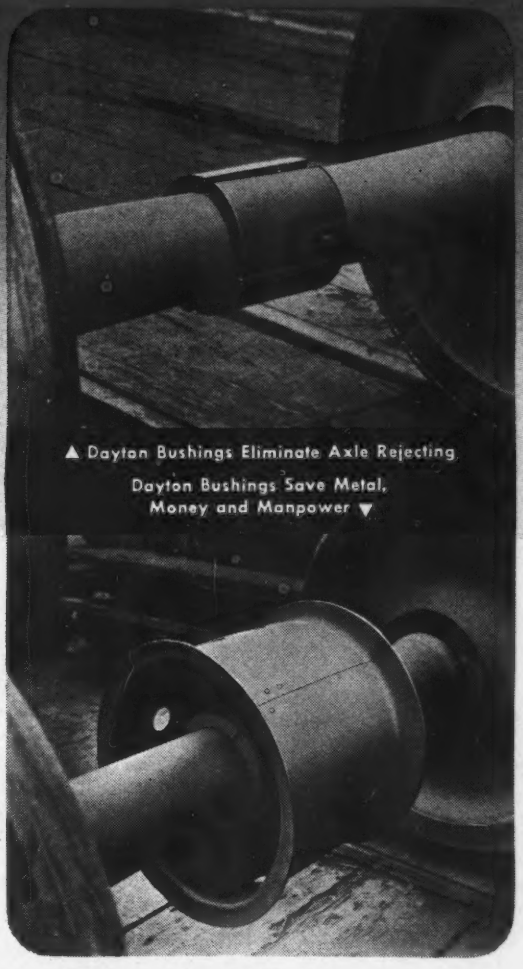
2232 Olive St.

For Wartime Conservation—

Dayton's Curved Bushings Replace Metal Bushings for Flat Pulleys!





▲ Dayton Bushings Eliminate Axle Rejecting

Dayton Bushings Save Metal, Money and Manpower ▼

LABOR-SAVING INSTALLATION FEATURES

1. Easy to install—Bushing & Pulley applied in 1 operation.
2. No bolts, clamps or cement necessary.
3. Fit axle snugly—only the bolts of the axle pulley halves need to be drawn up.
4. Eliminate distorting of flat pulleys upon application.
5. Save application time and manpower.

AXLE AND PULLEY-SAVING ADVANTAGES

1. Eliminate rejections of axles due to marking and scoring by metal bushing.
2. Prevent pulley from becoming loose on axle.
3. Act as a rust-proof cushion for pulleys and belts.
4. Long-lasting, and can be used over and over again.

BY REQUEST, Dayton Curved Bushings are offered to protect axles and flat axle pulleys until you can replace flat belt drives with economical, dependable Dayton V-Belt Car Lighting Drives. *Dayton Curved Bushings save 45-55% of purchase price of metal bushings,* are made of *permissible materials*—and easy to install without bolts, clamps or cement. Furthermore, they can be quickly supplied upon receipt of the following information—

1. ***Size and diameter of the axle.***
2. ***Data as to whether axle is straight or tapered***
3. ***Position of the axle pulley on the axle.***

Glance at the labor-saving installation features and the pulley-saving advantages of these Curved Bushings and get full details from

THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO

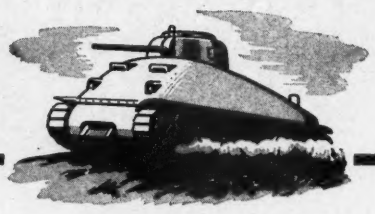
Pioneers of Railway V-Belts and Connectors... The World's Largest Manufacturer of V-Belts

Dayton V Belts

For Car Lighting • Diesel Locomotive and Air-Conditioning Equipment

WOOD DRAINAGE PIPE

FIGHTS ON TWO FRONTS

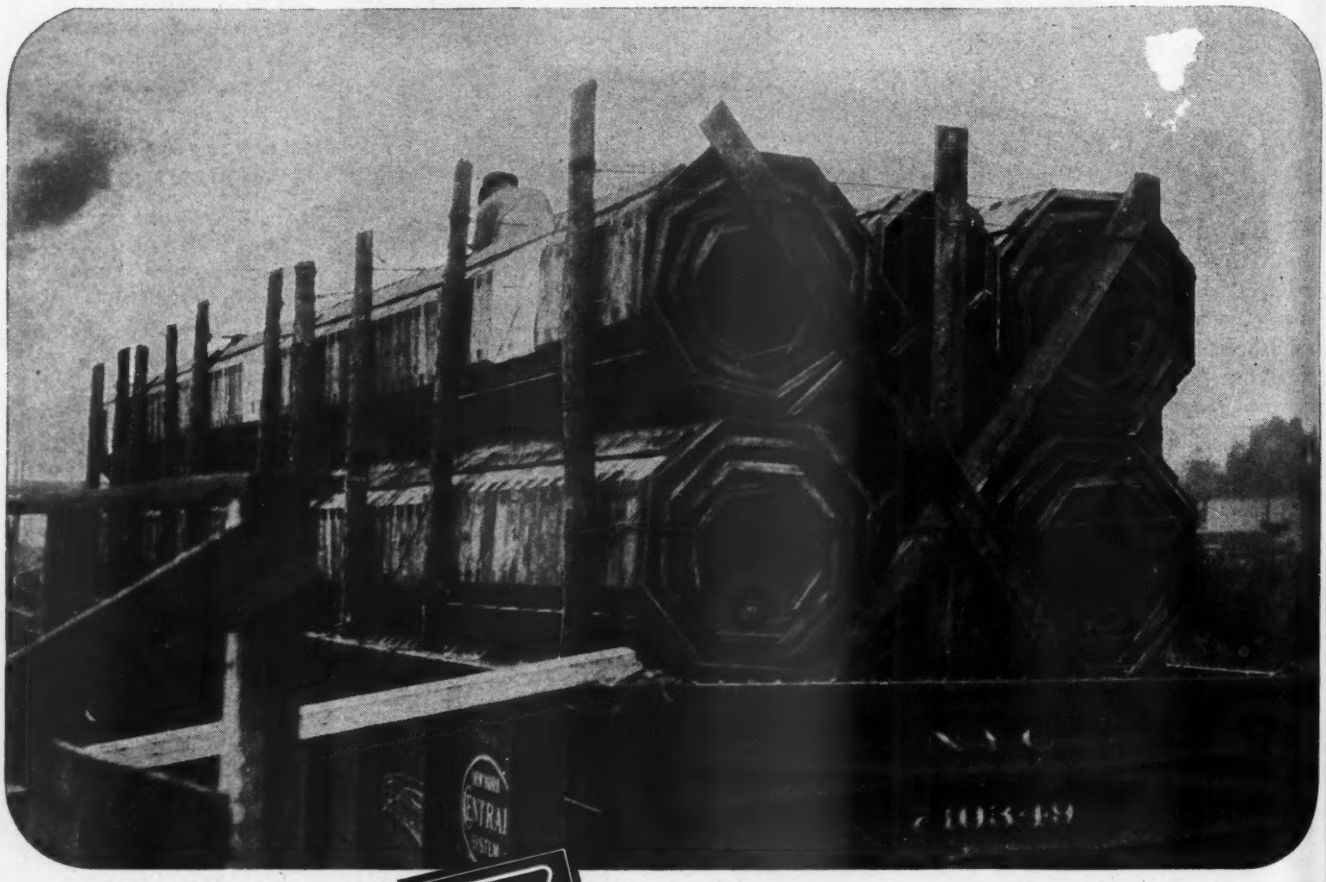


Drainage structures made of ARMCO Emergency Wood Pipe are doing an important wartime job at home and conserving thousands of tons of iron and steel. The metal they release may even now be helping to save lives on a distant fighting front.

Yes, essential wartime drainage can be taken care of economically, efficiently and *patriotically*. The new design of ARMCO Emergency Pipe requires no steel sheets and bands, wire mesh, metal reinforcing or other critical materials. It is amply strong to meet railroad requirements. Handling is easy and skilled labor is not required for installation. Equally important, ARMCO Pipe is light in weight and nestable, which often means up to 80 per cent savings in transportation.

ARMCO Corrugated Metal Pipe is only on temporary "leave of absence." It will be back after the war with its flexible strength, long lengths, tight joints, and low installation costs.

Meanwhile, you can aid the war effort by not using steel in any drainage structure unless engineering integrity demands it. The metal you save means more ships, tanks and other vital equipment for our fighting forces. As desirable as the steel product is, you'll find ARMCO Emergency Wood Pipe a mighty practical substitute. Write for complete data. Armco Railroad Sales Co. Inc., 641 Curtis St., Middletown, O.



ARMCO ARMCO **EMERGENCY PIPE**

MT. VERNON CAR MFG. CO.

MT. VERNON ILLINOIS

On The Job Until The War Is Won — Building Bombs, Ship Sections and Cars For Our Government.

MT. VERNON

All of our Employees are BUYING WAR BONDS The BEST Investment on Earth TODAY!

MT. VERNON BUILT "U.P." DESIGN ALL-WELDED ALLOY STEEL UNDERFRAMES

TOP VIEW

BOTTOM VIEW

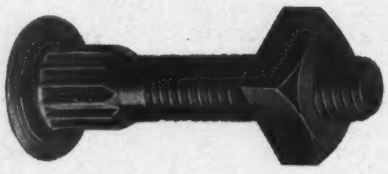
FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS

10 STAR ITEMS

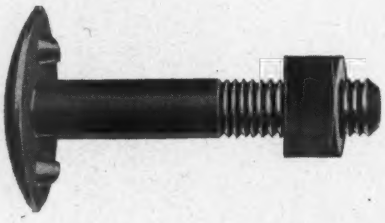
from the Complete Line of

OLIVER

SPECIALIZED R R FASTENERS



WATERTIGHT BOLT
Weather-sealed, heavy flush head. No counter-boring needed. Corrugated neck prevents turning.



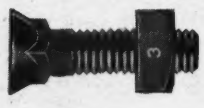
RUNNING BOARD BOLTS
Large, round head gives firm grip, long life. Made with lugs or fin under head.

COLLAR RIVET BOLT
For fastening wood and steel together. Collar fits inside wood, with head riveted over the steel.

FLUSH HEAD FREIGHT CAR BOLT
Widely used for flooring, etc. in freight cars. Fits flush without counter-boring.

CARRIAGE BOLTS
Accurately made, rolled and cut threads, all lengths and diameters. Special styles available.

PLOW BOLTS
Flat top countersunk head, square neck. A very useful car-builders bolt. All sizes.



T-HEAD BOLTS
A machine bolt for use where head must be flush with surface of work.

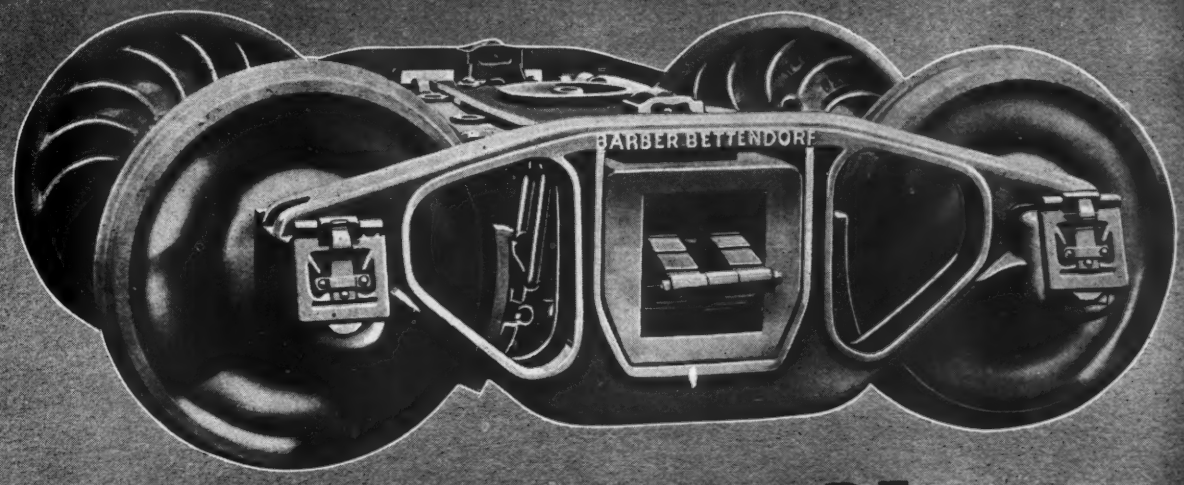
COUNTERSUNK HEAD BOLTS
Another popular type for flush applications. Made in a complete range of sizes.

MACHINE BOLTS
All popular sizes and styles. Standard heads include: square, hexagon, button, etc.

RIVETS
All sizes, lengths and heads required for railroad use are included in the Oliver line.

OLIVER
IRON AND STEEL
Corporation

SOUTH TENTH AND MURIEL STREETS · PITTSBURGH, PENNSYLVANIA



BARBER-BETTENDORF *Swing Motion* Caboose Car Trucks

These easy-rolling, full floating trucks take the violent "jerk" and "bounce" out of caboose car performance . . . with a combination suspended bolster and elliptic spring design excellently suited to wartime high speed service. This construction smooths the roughest runs . . . reduces trip-fatigue . . . helps train crews remain alert and efficient.

Other important, established features insure extra safety and convenience, while simplified, cast-steel construction cuts initial and maintenance costs. Barber-Bettendorf Caboose Car Trucks meet all A. A. R. specifications and thousands, in daily use by many of the country's foremost roads, offer definite proof of advantages that you should investigate today.

EASY RIDING . . .
Full-elliptic springs reduce vibration and take the "whip" out of sharp curves.

HIGH SPEED DESIGN . . .
Counterbalances the shock and strain of high speed operation.

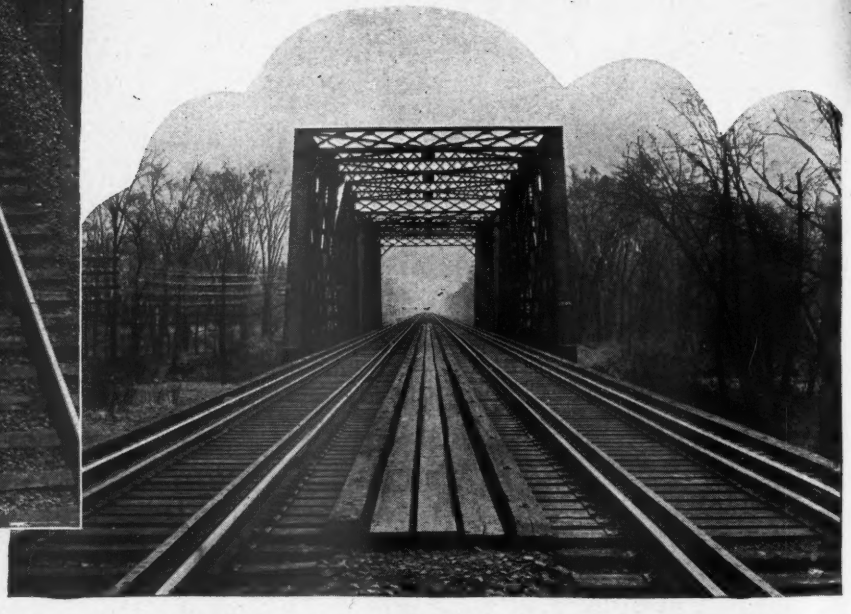
SIMPLIFIED CONSTRUCTION . . .
Incorporates only nine major parts. Easy to assemble and install.

LOW COST MAINTENANCE . . .
Insured by cast steel construction . . . and experienced workmanship.

STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVENUE CHICAGO, ILLINOIS

AMCRECO
CREOSOTED PRODUCTS

.....ARE PROVIDING
A SAFE, RELIABLE
FOUNDATION FOR
MORE TRAINS,
HEAVIER LOADS AND
FASTER SCHEDULES!



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AMERICAN CREOSOTING COMPANY
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AMCRECO HOWARD PROCESS

GEORGIA CREOSOTING COMPANY INCORPORATED

ADDRESS INQUIRIES TO CHICAGO, ILL. OR LOUISVILLE, KY.

SH-H-H-H! THE ENEMY IS LISTENING!

● Sailors at sea couldn't listen to their favorite radio programs until one of our foremost radio manufacturers was commissioned to build a special seagoing receiver. It was found that ordinary radios "rebroadcast" and tipped off the ship's location. And without any radio, morale suffered.

Now, it's different! Sailors around the world are listening to radio programs from home through this low-radiation receiving set. The speed with which it was produced and put in service is a tribute, in part, to the ***E·L*** engineers asked to provide a suitable power supply. They did it—fast, and well.

This is just one of the many contributions to America's war effort which ***E·L*** research and specialized knowledge of vibrator power supplies and electronic circuits has made possible. You'll find ***E·L*** Vibrator Power Supplies on the job in all types of service, and on every front where the United Nations are fighting.

Wherever electric current must be changed, in voltage, frequency or type, ***E·L*** Vibrator Power Supplies and Converters offer a wide range of advantages, for peace, as well as for war.

For Operating Radio Transmitters in Lifeboats—E·L Model S-1229-B Power Supply. Input Voltage, 12 Volts DC; Output Voltage, 500 Volts DC; Output Current, 175 MA; Dimensions, 7½" x 5½" x 6¼".

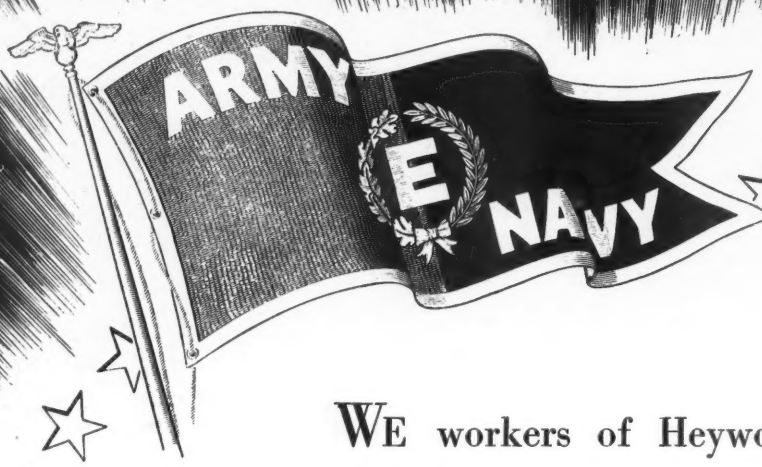
For Operating AC Radio Receivers from DC Current—E·L Model 262 Marine Power Supply. Input Voltage, 110 Volts DC; Output Voltage, 110 Volts AC; Output Power, 250 Volt-Amperes; Output Frequency, 60 Cycles; Dimensions, 10½" x 7⅝" x 8¼".

Electronic LABORATORIES, INC.

INDIANAPOLIS

E·L **ELECTRICAL PRODUCTS**—Vibrator Power Supplies for Communications . . . Lighting . . . Electric Motor Operation . . . Electric, Electronic and other Equipment . . . on Land, Sea or in the Air.

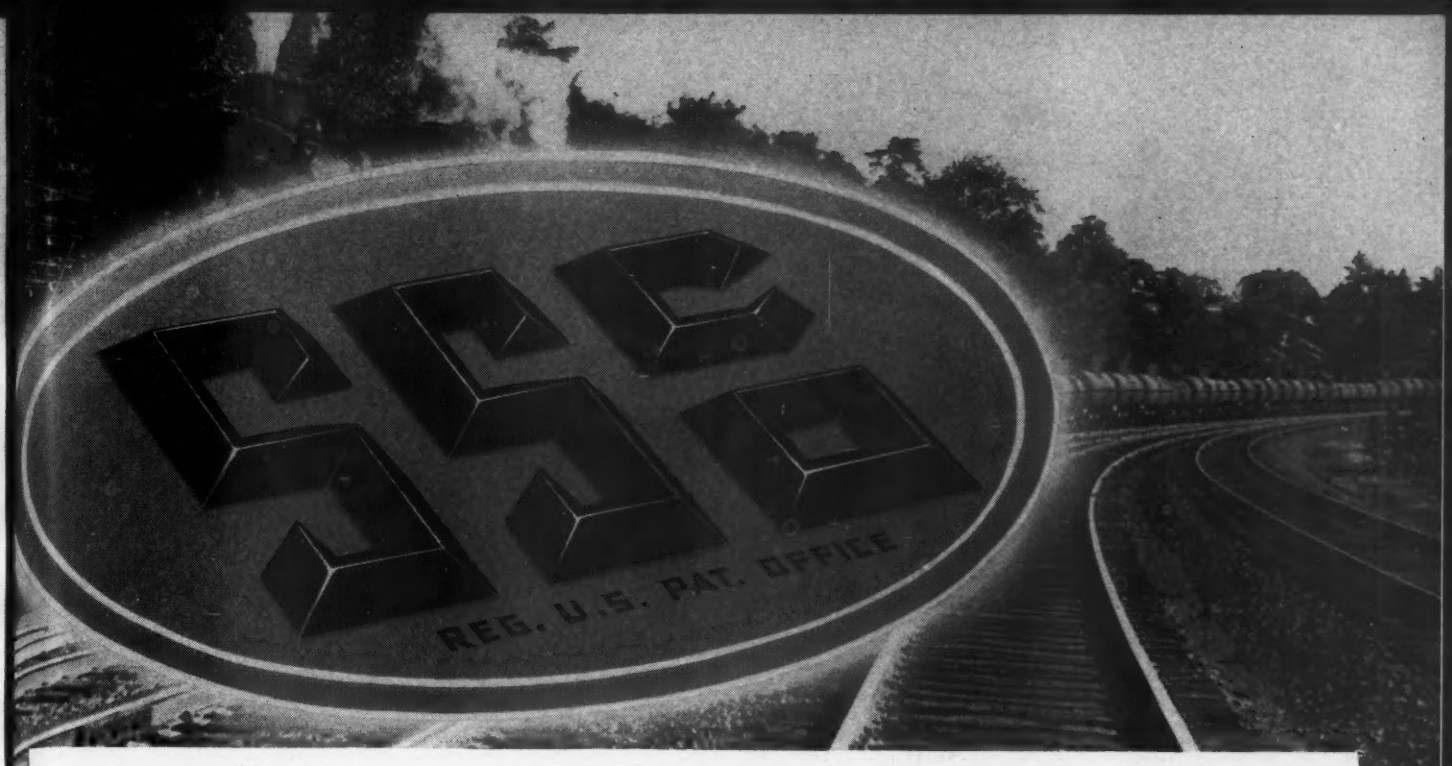
To HEYWOOD-WAKEFIELD
"for high achievement in War Production"

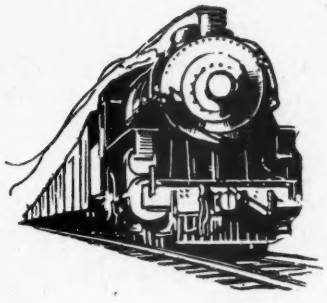


WE workers of Heywood-Wakefield are proud indeed to be honored with the Army-Navy "E" award. If any war item which we have manufactured has helped to save the life of one American boy we are everlastingly grateful and amply rewarded. Now that this beautiful emblem is ours we have a new inspiration, namely, to *add* a star for each succeeding six months of continued "high achievement". Toward that objective we are moving steadfastly . . . and as one.

Richard N. Greenwood, *President*
HEYWOOD-WAKEFIELD COMPANY

HEYWOOD-WAKEFIELD
Established 1826
GARDNER . . . . MASSACHUSETTS





This Standard Stoker trade-mark is a symbol of QUALITY, PERFORMANCE, DEPENDABILITY and SERVICE in locomotive stokers

IT SIGNIFIES a supplier that is exerting every effort to meet the railroads' demands for stokers, coal pushers and parts, in quantity and on time.

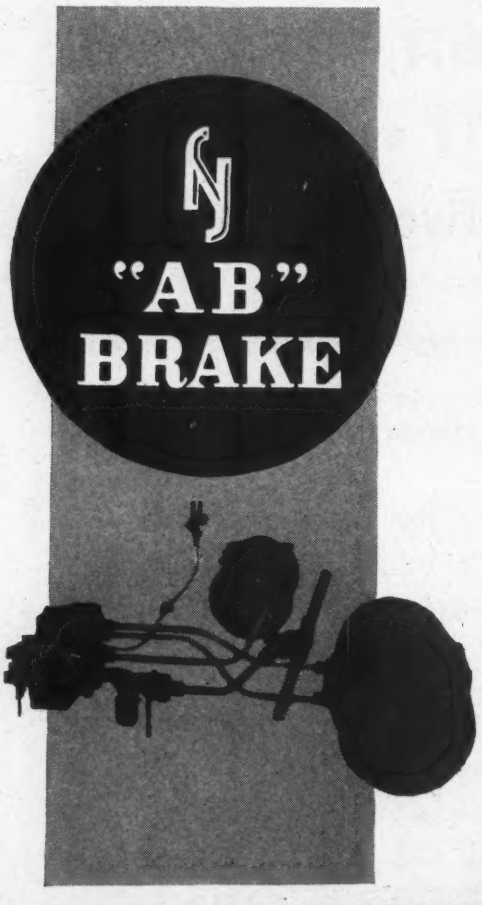
This trade-mark, in addition, represents over 16,000 Standard Stokers firing locomotives throughout the United Nations.

THE STANDARD STOKER COMPANY, INC
NEW YORK • CHICAGO • ERIE • MONTREAL

1½ MILLION TONS Move a Mile Every Minute

Better Brakes

A Contributing Factor



NO wonder that the entire nation is proud of the American railroads. Even the most optimistic transportation experts are astounded—No industry has planned better or achieved more.

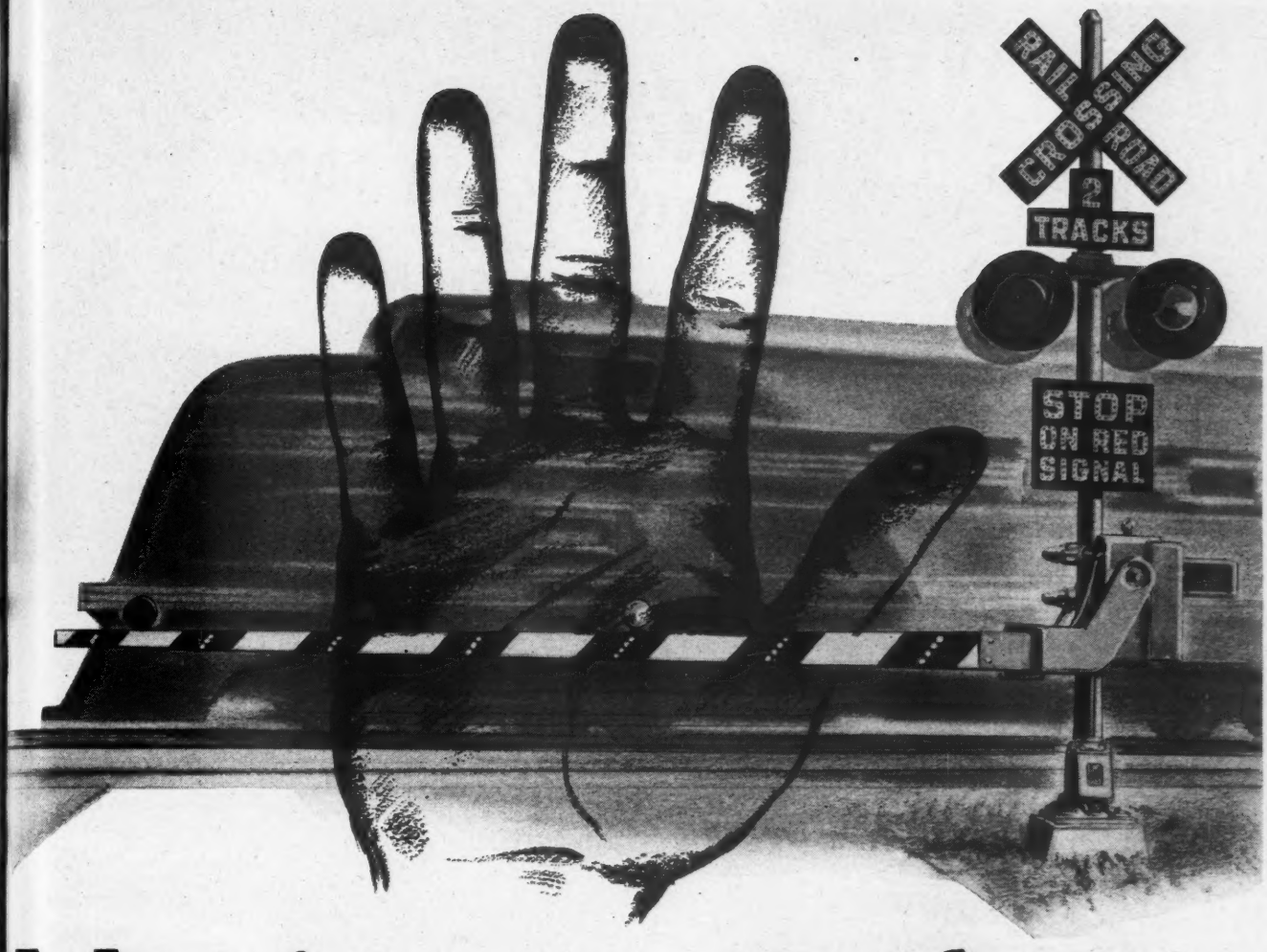
Improved retardation control, made possible by the "AB" Brake has played a very important part in the sensational increase of ton miles per car and per locomotive.

By providing a faster, more positive and more effective brake operation the "AB" Brake has made possible higher speeds, heavier tonnage trains and war time transportation with a minimum amount of freight cars.

Careful analysis of operating records will show that the "AB" Brake has also helped to reduce damage claims and maintenance costs. Post war plans should include general application on all cars to insure greater progress in freight train operation and maximum net revenues.

The New York Air Brake Company

420 Lexington Ave., New York City. Plant: Watertown, New York



A barrier arm *compels action*

THE

Model 10
HIGHWAY CROSSING SIGNAL

MECHANISM

- **Is the product of years of development.**
- **Operates as safely as a semaphore signal.**
- **Has ample reserve power.**
- **Snubs electrically.**
- **Has no oil dash pot.**
- **Is built by experienced signal manufacturers.**

U. S. Patent No. 2,137,196—
Patented in Canada June 27, 1939

Flashing lights alone are often disregarded . . . they do not always arouse immediate action, but a barrier arm ahead is a command to stop.

The gate arm of the Model 10 Crossing Signal bars traffic in the approach highway lane . . . bars it until the entire train passes . . . bars it if a second train is approaching. Does not trap vehicles on the crossing.

BUY MORE WAR BONDS

WESTERN RAILROAD SUPPLY CO.
2360 SOUTH ASHLAND AVENUE, CHICAGO

HASKELITE

Has The Answer . . .

PARTITIONS and DOORS

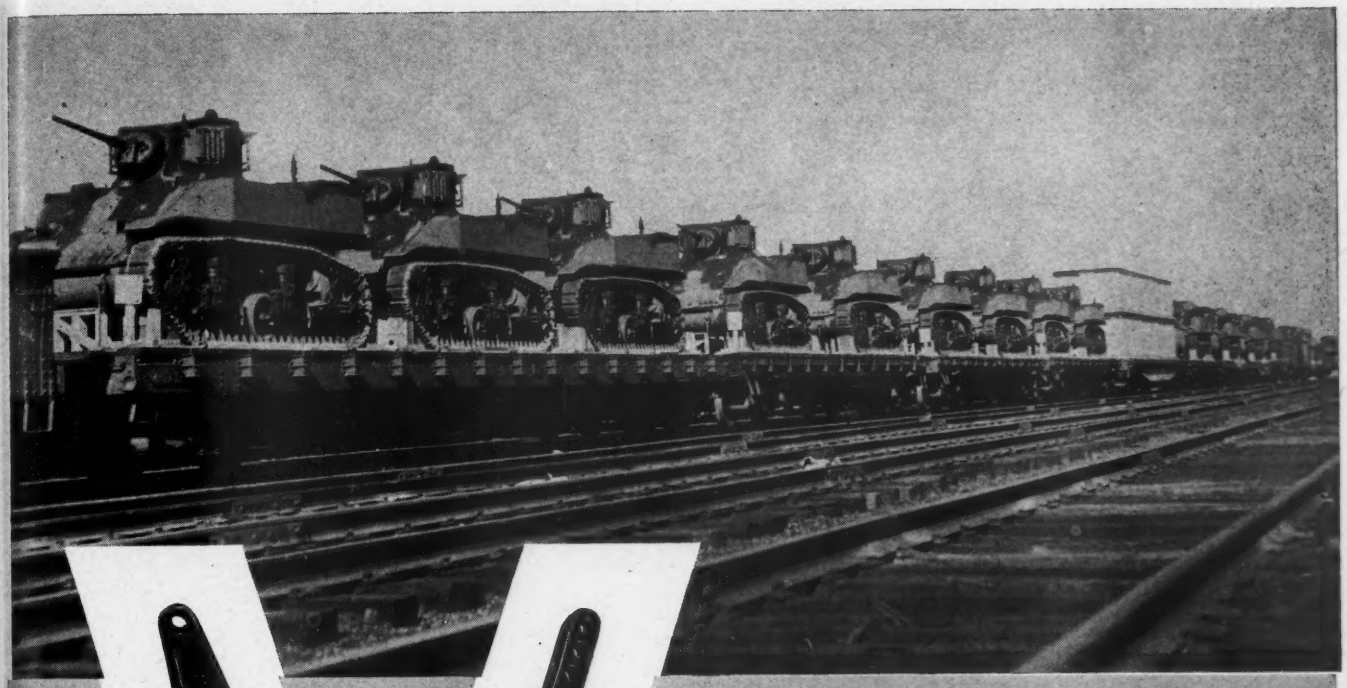
PROBLEM: To Speed and Simplify Post-War Reconditioning of War-Worn De Luxe and Day Coaches

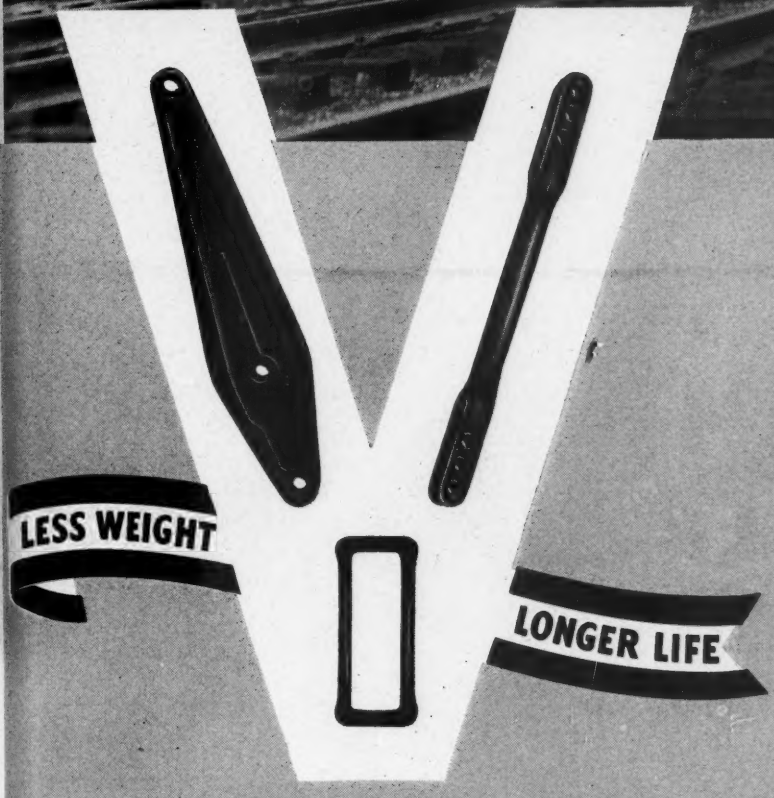
When the railroads face the task of reconditioning and modernizing passenger cars for peace-time service, Haskelite materials will be available to meet the problems of fast and economical fabrication, modern appearance, light-weight and endurance.

Haskelite Plymetl—metal-faced plywood employed in bulkheads, partitions and doors—is easily fabricated on wood working machinery. All preliminary work is done on the bench, away from the car . . . with substantial savings in working space, equipment and labor.

HASKELITE MANUFACTURING CORPORATION
GRAND RAPIDS 6, MICHIGAN
CHICAGO • DETROIT • NEW YORK

HASKELITE



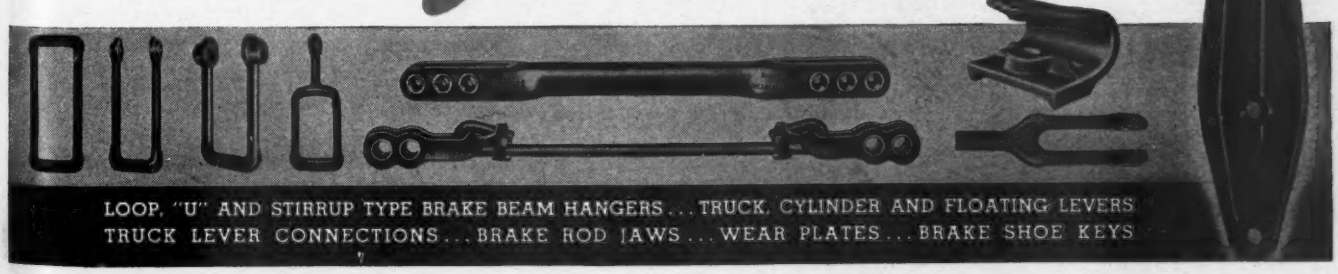


Typical of the thousands of freight cars, most of them equipped for faster, safer running with Schaefer Forged Steel Foundation Brake Gear Appliances, now carrying American war equipment to embarkation points—and giving no comfort to the Axis.

Railroads interested in a regular equipment-repair program should weigh the value of Schaefer equipment in the light of its sound structure and its longer service life.

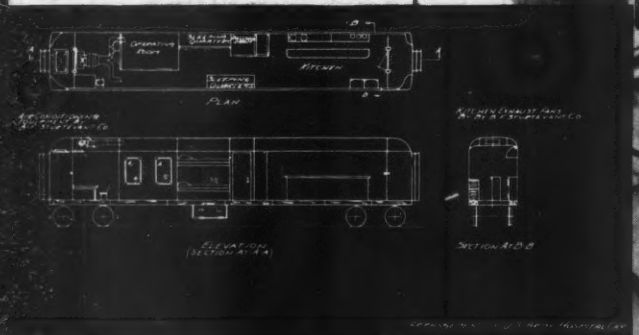
Schaefer EQUIPMENT COMPANY

KOPPERS BUILDING • PITTSBURGH, PA.

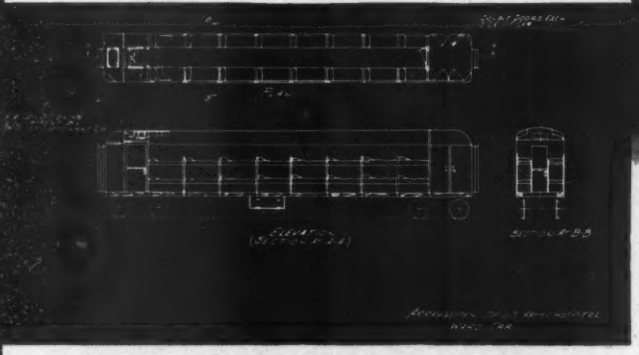


LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS... TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS... BRAKE ROD JAWS... WEAR PLATES... BRAKE SHOE KEYS

AIR CONDITIONED



Arrangement of operating room car showing Pullman System with Sturtevant Equipment for complete air conditioning.



Arrangement of Sturtevant-equipped ward type car. As in operating room cars, pre-cooling coils are used to reduce ice consumption.

Use of new U. S. Army Hospital cars permits unloading of wounded service men from hospital ships or planes for immediate transfer to base hospitals. 85 of these cars are air conditioned by Pullman systems with complete Sturtevant Air Conditioning Equipment.

HOSPITAL CARS...

by Pullman, the Railroads and U. S. Army, WORKING TOGETHER!

MOVING *WOUNDED* TROOPS calls for an extra dose of that stellar teamwork that is winning the Battle of the Rails, today.

First, Uncle Sam called on the Pullman Company—cooperating with the U. S. Army Medical Corps—to convert enough standard Pullman cars to accommodate these men efficiently, comfortably. Then he called on the railroads to give these cars the green light—to get them to and from their destinations smoothly and swiftly without disrupting war delivery schedules.

It's one of those tremendous trifles in the battle of the rails that might pass unnoticed. Probably you know, but if not, we think you will be interested in the details of how wounded men are being cared for. How nothing is overlooked that provides for their comfort and safety—even to the complete air conditioning of all 85 cars now slated for service.

The Pullman Company, the railroads, the U. S. Army . . . all who have had a part in the conception of this idea, the reconversion of the cars and their operation . . . can be justly proud.

B. F. STURTEVANT CO.
Hyde Park Boston, Mass.

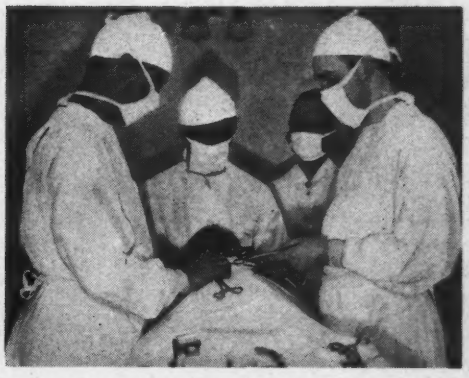
Interior of ward-type car equipped with 16 standard double deck beds—shown with medical staff in attendance. PHOTO BY BOSTON POST.

Hospital trains are operated in 3 car units—two ward type cars and one operating room car where patient is shown above. PHOTO BY SIGNAL CORPS.

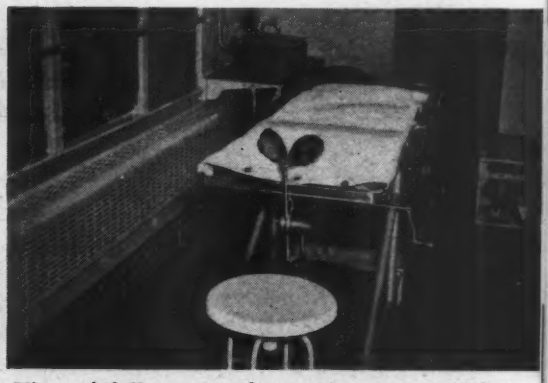
View of kitchen in railway hospital car—capable of feeding up to 500 persons at one meal.
PHOTO BY SIGNAL CORPS.

Sturtevant
REG. U.S. PAT. OFF.
Puts Air to Work

Exterior of operating room car which also contains 4 single beds as well as complete kitchen facilities.
PHOTO BY SIGNAL CORPS.



Scene at major operation aboard hospital car — surgeon is assisted by anesthetist, medical specialist and nurse.
PHOTO BY SIGNAL CORPS.



View of fully equipped operating room which is used for examinations, daily dressings and emergency operations. PHOTO BY SIGNAL CORPS.

...LINE YOUR CARS WITH

HAIRINSUL

and your ice will go farther!

● Freight MUST move faster in wartime . . . and that means less time-out for icing. But that's no problem when cars are insulated with ice-saving HAIRINSUL that gets more cooling efficiency out of every pound of ice!

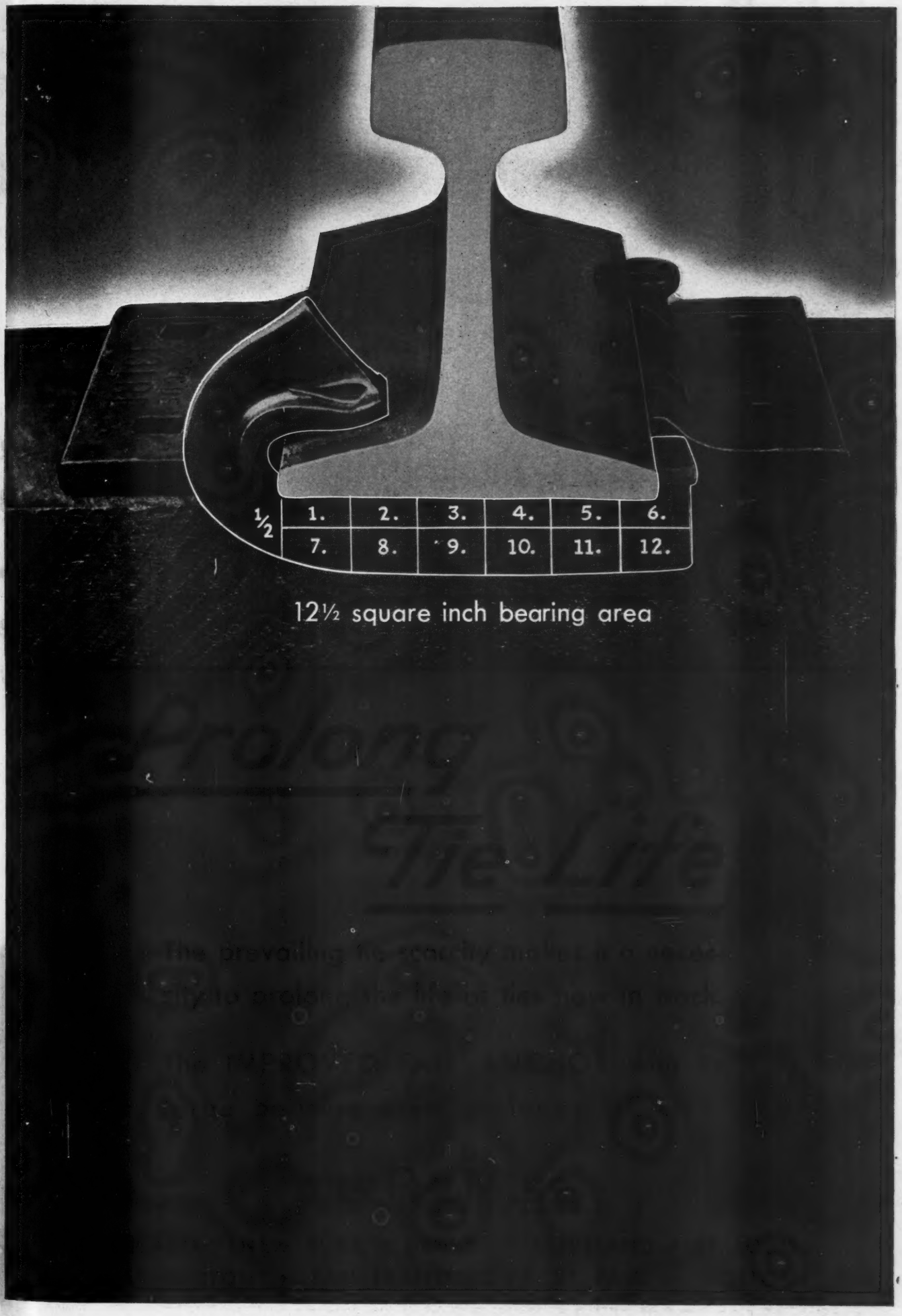
When you rebuild or repair refrigerator cars, line them with HAIRINSUL, the *permanent* insulation that never loses its protective properties, can be used again when the car gets too old for service. It's thick, it's flexible, it can be fitted anywhere and *you can get it NOW!* Send for samples and engineering data.

AMERICAN HAIR & FELT COMPANY
MERCHANDISE MART • CHICAGO

NO PRIORITIES!
Available for immediate delivery

HAIRINSUL

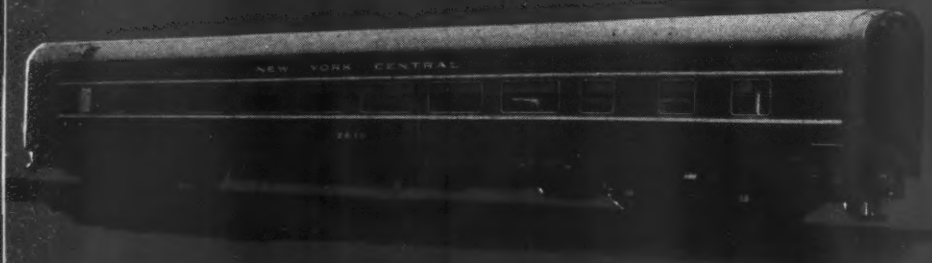
★ ALL HAIR INSULATION FOR REFRIGERATOR CARS ★

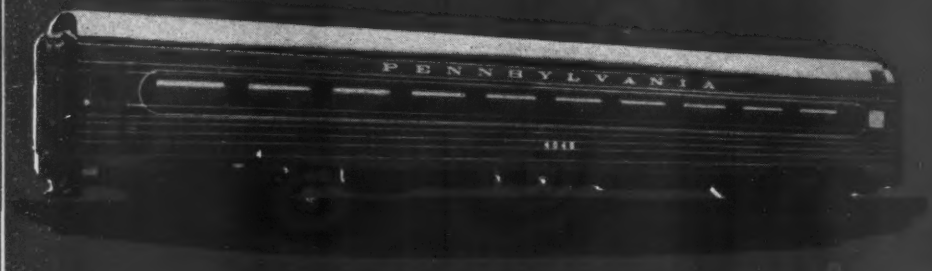


12½ square inch bearing area

PRESSED ST

Behind Every Transp





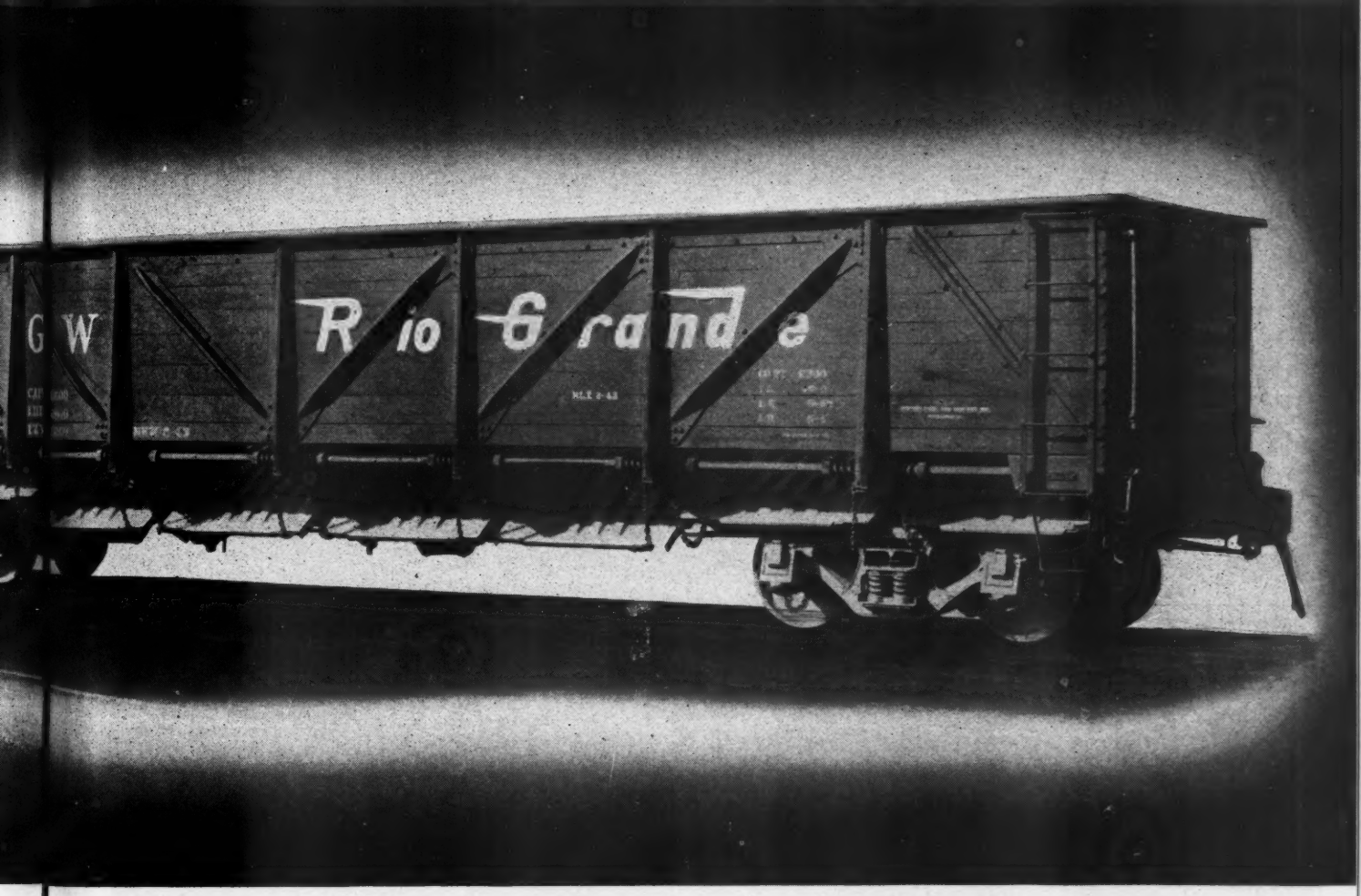
These cars and many thousand others like them built by Pressed Steel have helped the railroads to turn in record-smashing performances in handling the huge war and civilian traffic with tip-top efficiency.

PRESSED

BUILDERS OF FR

STEEL CARS

...sportation Objective



ADVANCED engineering — ruggedness — greater strength, durability and long life are inherent characteristics of Pressed Steel Cars which are certain to give greater safety, lower operating costs, reduced maintenance and more efficient transportation.

Pressed Steel Car pioneered progress when it built the first steel freight car—it pioneered the first all-steel passenger car and popularized the use of pressed steel parts in car construction. Pressed Steel is constantly designing, refining and improving and building cars for greater achievements in American rail transportation.

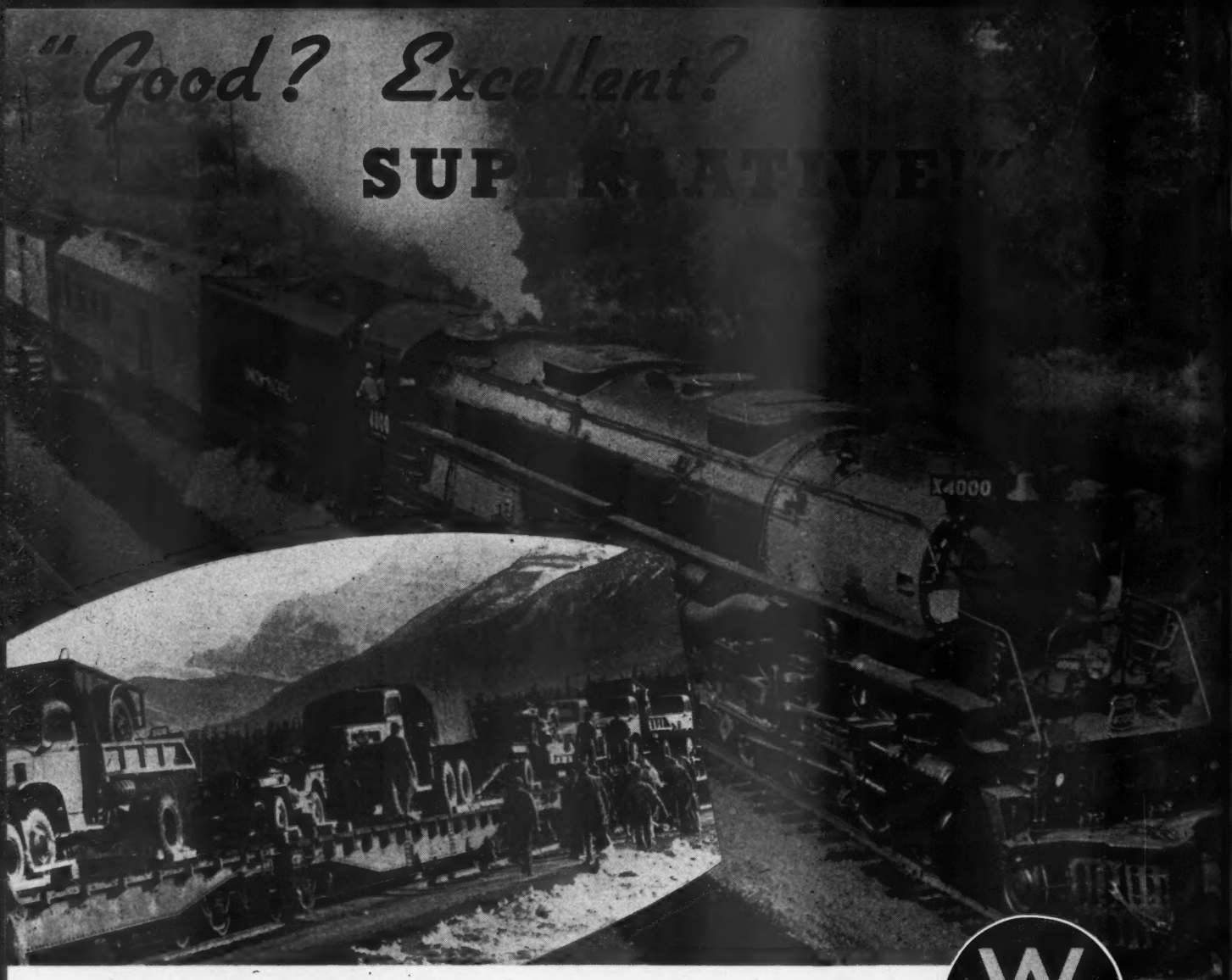
You can always depend upon the ruggedness of Pressed Steel Cars to stand the gaff of hard service and to give ultimate protection to lading in transit. The inbuilt quality KEEPS 'EM ROLLING longer and with less attention.

D STEEL CAR COMPANY, Inc.

PITTSBURGH, PA.

FREIGHT AND PASSENGER TRAIN CARS FOR EVERY PURPOSE

"Good? Excellent? SUP[illegible]"



So said an officer of the Army Transportation Corps when questioned regarding wartime performance of the railroads.*

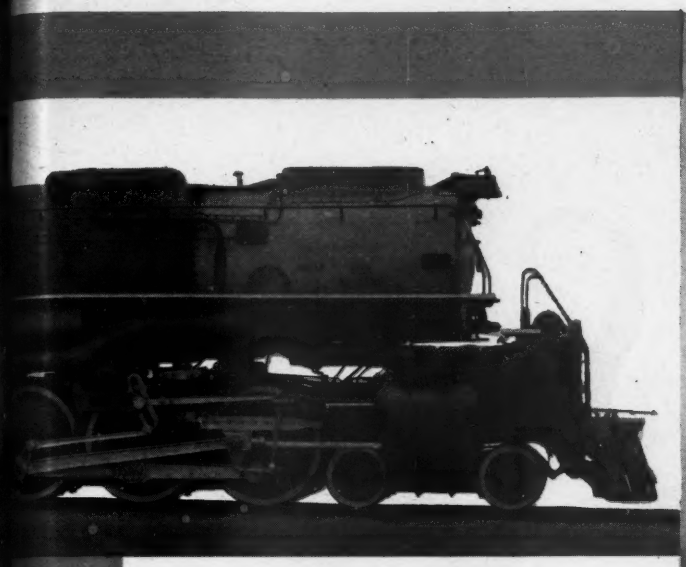
The emergency found them ready with much improved equipment — more efficient, more reliable, more durable — that was being accumulated for better peacetime service. Wartime requirements of increasing magnitude have proved the wisdom of this foresight. Vital materials and supplies have been kept rolling at time-saving speeds, in huge volume, troops moving in vast numbers with dispatch, but — the "saturation point" of available facilities is imminent. Motive power and rolling stock are being taxed to their utmost. They must be augmented by new equipment, reinforced with adequate maintenance supplies.

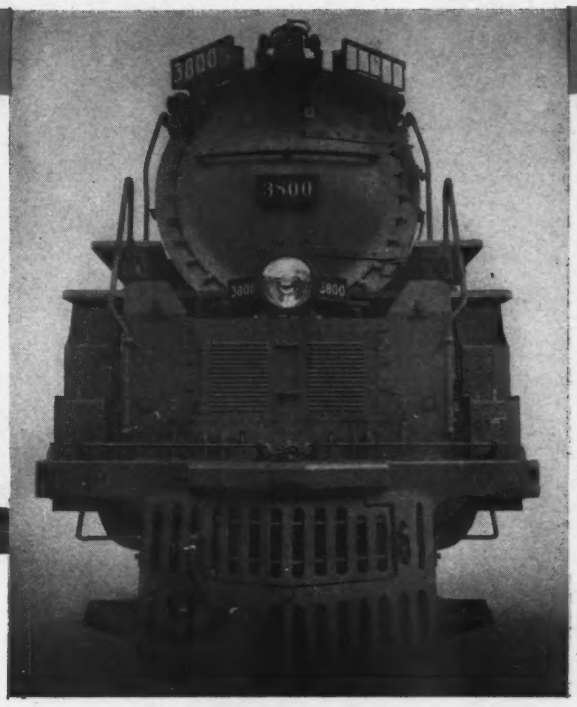
Pending more liberal allotment of vital materiel', for which we are amply prepared, our field personnel will be glad to give any desired help toward maintaining the performance of Air Brakes, so that the accelerated movement of volume traffic may continue to be properly safeguarded, and that the best possible results be realized from equipment now in service.

****As reported in Railway Age — June 26, 1943.***

WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA





WITH THE NATION'S NEEDS

Keeping pace with the Nation's needs, the Denver & Rio Grande Western has recently put into operation six Alco 4-6-6-4's. Incidentally, this adds another road to the list of those who have taken advantage of the capabilities of this high-speed, heavy-tonnage locomotive.

Alco

AMERICAN LOCOMOTIVE

MANUFACTURERS OF MOBILE POWER

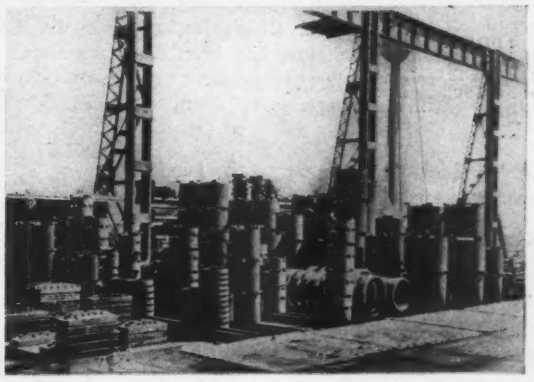
STEAM, DIESEL AND ELECTRIC LOCOMOTIVES, MARINE DIESELS, TANKS, GUN CARRIAGES & OTHER ORDNANCE

Locomotive Characteristics

Weight on Drivers	405,500 Lb.
Weight of Engine	630,000 Lb.
Cylinders (Four)	21 x 32 Ins.
Diameter of Drivers	69 Ins.
Boiler Pressure	280 Lb.
Tractive Power	97,350 Lb.
Tender Capacity—Water	25,000 Gals.
Tender Capacity—Fuel	28 Tons

★ ★ BUY U. S. WAR BONDS AND STAMPS ★ ★

Long Service



Reduces Material Requisitions

WEAR-RESISTING parts made from HUNT-SPILLER *Air Furnace* GUN IRON are playing a tremendous part in the railroads' battle to conserve materials.

The long service built into HSGI Parts not only assures maximum mileage between renewals but also helps to increase the life of adjacent components, reduce fuel consumption and increase the availability of power at a time when every unit is of vital importance to the nation's transportation objective.

HUNT-SPILLER MFG. CORPORATION

V. W. Ellet, President — E. J. Fuller, Vice-Pres. & Gen. Mgr.

383 Dorchester Ave. *Office & Works* South Boston, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.

Export Agent for Latin America: International Rwy. Supply Co., 30 Church Street, New York, N. Y.

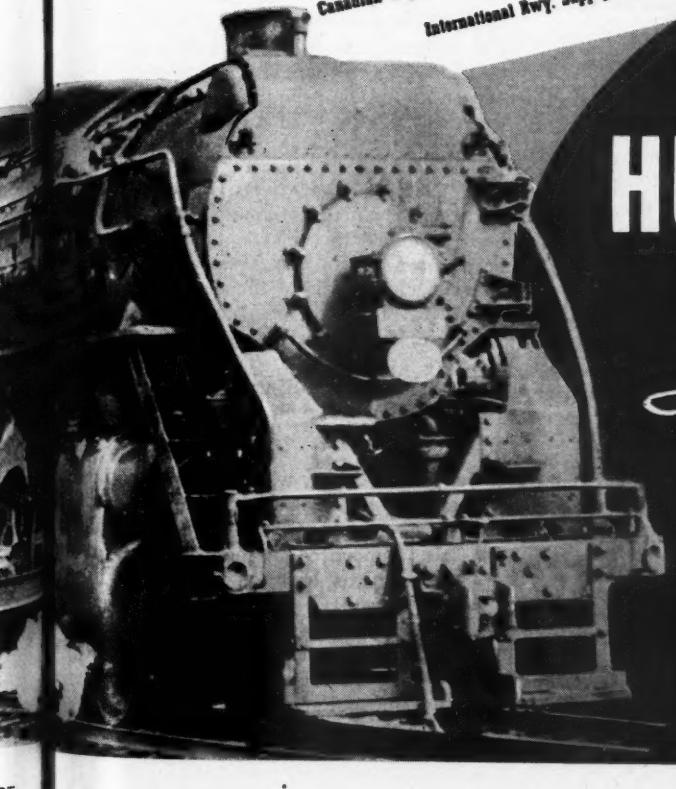
HSGI

Reg. U. S. Trade Mark

Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings

Finished Parts

Dunbar Sectional Type Packing
Duplex Sectional Type Packing for Cylinders and Valves
(Duplex Springs for Above Sectional Packing)
Cylinder Snap Rings
Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons for Diesel Service



HUNT-SPILLER

Air Furnace

GUN IRON

at Toronto, Ont. **A. A. Chisholm,** supervisor of fire protection, has been appointed supervisor of fire and accident prevention, with headquarters at Moncton, N. B.

A. P. Linnell, assistant to the general manager of telegraphs and telephones on the Canadian National at Toronto, Ont., has been promoted to general superintendent of telegraphs and telephones, Western region, with headquarters at Winnipeg, Man., succeeding **J. G. Davies,** who has retired.

G. A. Hill, superintendent of motive power and cars of the Wheeling & Lake Erie, has been promoted to general superintendent in charge of train, station and yard operations, and maintenance of way and structures, with headquarters as before at Brewster, Ohio. **G. E. Durham,** assistant to the superintendent of motive power and cars, has been advanced to superintendent of motive power and cars, with headquarters as before at Brewster, succeeding Mr. Hill.

Miles R. Dwyer, whose appointment as division superintendent of the New York Central, with headquarters at Buffalo, N. Y., was announced in the *Railway Age* of July 17, was born on August 26, 1889, at

Miles R. Dwyer

Virgil, N. Y. Mr. Dwyer entered railroad service in September, 1905, as clerk of the New York Central at DeWitt yard, E. Syracuse, N. Y., and subsequently served at that point as conductor, yardmaster, and assistant general yardmaster, successively. In January, 1920, he was appointed general yardmaster, Belle Island yard, Syracuse, N. Y., and on September 5, 1925, he became trainmaster at Buffalo, N. Y. Mr. Dwyer was appointed assistant division superintendent at Buffalo on November 1, 1939, and was maintaining that position at the time of his recent appointment as division superintendent at that point. Mr. Dwyer is a member of the Society of American Military Engineers and is a lieutenant colonel, 701st Engineer Headquarters, Railway Grand Division, Officers Reserve.

Chester A. Raymonda, whose appointment as assistant general manager of the New York Central, Line East, with headquarters at Syracuse, N. Y., was announced in the *Railway Age* of July 17 was born on November 30, 1878, at Herkimer, N. Y. Mr. Raymonda entered railroad service in October, 1902, as telegraph operator on the Mohawk division of the New York Central, and in 1907 was appointed train dispatcher at Utica, N. Y., becoming trainmaster at that point in 1912. From March, 1921, to January, 1927, in addition to maintaining his position as trainmaster of the New York Central, Mr. Raymonda served as superintendent of the New York State railways, Oneida line, at Utica. In 1927 he was appointed assistant superintendent of the New York Central at Syracuse, and in December, 1936, he was advanced to superintendent at Rochester, N. Y. In November, 1937, Mr. Raymonda was transferred to Buffalo, remaining in that position until the time of his recent appointment as assistant general manager.

Chester A. Raymonda

FINANCIAL, LEGAL AND ACCOUNTING

Leon Z. McPherson has been appointed solicitor of the Canadian National, with headquarters at Toronto, Ont.

C. H. Diamond has been appointed freight claim agent of the Reading and acting freight claim agent of the Central of New Jersey, with headquarters at Philadelphia, Pa., succeeding **Edward Dixon,** who has resigned.

J. O. McCort, auditor of the Wheeling & Lake Erie, has been promoted to comptroller, with headquarters as before at Cleveland, Ohio. **J. T. Schenkel** has been appointed auditor, succeeding Mr. McCort.

Charles B. Anderson, freight claim agent and car accountant of the Chicago & Eastern Illinois, with headquarters at Chicago, died in that city on July 13. Mr. Anderson was born at Momence, Ill., on August 7, 1874, and entered railway service in January, 1891, as a messenger of the C. & E. I. at Chicago. He subsequently served as assistant chief clerk and assistant cashier, cashier, and local freight agent with the same headquarters, and in 1917 he was promoted to superintendent of transportation at Chicago. In 1927 Mr. Anderson was advanced to special representative of the vice-president in charge of operations, and six years later he was appointed to the position he held at the time of his death.

TRAFFIC

Warren P. Knowlden has been appointed assistant general baggage agent of the New York Central, with headquarters at Buffalo, N. Y.

Joseph A. Armento, district freight agent of the Pennsylvania at New Haven, Conn., has been transferred to Chicago, succeeding **O. Clifford Grimshaw,** who has been transferred to Altoona, Pa.

A. A. LeBlanc has been appointed general agent of the Canadian National, with headquarters at New Carlisle, Que., and **W. J. Riesberry** has been appointed general agent in the freight traffic department, with headquarters at Toronto, Ont.

B. J. King has been appointed assistant general freight agent of the Seaboard Air Line, with headquarters at Miami, Fla., succeeding **F. G. Roberts,** whose appointment as assistant freight traffic manager was announced in the *Railway Age* of July 17.

W. M. Hugle has been appointed general agent of the Quanah, Acme & Pacific, with headquarters at Chicago, succeeding **Roy L. Thompson,** who has resigned. **L. B. Williams** has been appointed general agent, with headquarters at Pittsburgh, Pa., replacing **Roy C. Klostermeyer,** who has resigned.

J. S. Switzer, division freight agent of the New York Central at Bay City, Mich., has been promoted to assistant general freight agent, with headquarters at Detroit, Mich., succeeding J. H. Becker, who has resigned. **G. R. Peterson,** assistant coal freight agent at Detroit, has been advanced to division freight agent, with headquarters at Bay City, succeeding Mr. Switzer.

C. C. Kelsey, district freight agent of the Pennsylvania at Trenton, N. J., has been promoted to coal freight agent, with headquarters at Boston, Mass. **Elmer R. Norris,** chief clerk to the district freight agent at Wheeling, W. Va., has been advanced to district freight agent, with headquarters at Nashville, Tenn., succeeding **James M. C. Collins,** who has been transferred to Trenton, replacing Mr. Kelsey.

James R. Getty, whose appointment as general passenger agent of the Seaboard Air Line, with headquarters at Miami, Fla., was announced in the *Railway Age* of June 26, was born on September 26, 1914, at Oaks, Pa., and attended the University of Pennsylvania. From 1934 until January, 1936, Mr. Getty served as tourist agent of the American Express Company at Philadelphia, Pa., becoming ticket clerk of the Pennsylvania at Wilmington, Del., on the latter date. In December, 1937,

News Department continued on next left-hand page

"E"...for Everyone

THIS is Everyone's war. Everyone is in it. Everyone must do his job.

That's the way it must be for Victory . . . and that's the way it has been . . . or we here at American Locomotive in Latrobe wouldn't have received an "E" Award.

That "E" Award is a tribute to our workers and to our management.

It's a tribute to the people of Latrobe.

It's an indication that all down the line, Everyone is doing all he can . . . from the woman who buys War Bonds to help purchase raw materials to the checker who sees the finished equipment come off the assembly line on time.

And all the way down the line . . . to the ultimate soldier who uses the equipment in Europe or the South Pacific or Alaska... Everyone can take satisfaction in knowing that "too little, too late" is a phrase that no longer appears in the war utterances of the United Nations, because Everyone is doing his job.

That is why we accept our "E" Award . . . for Everyone.

American Locomotive

Railway Steel Spring Division

LATROBE, PA.

he went with the Seaboard Air Lines as traveling passenger agent at Philadelphia. Mr. Getty became district passenger agent at Philadelphia in November, 1940, and one year later he was transferred to Miami, Fla., the position he held at the time of his recent appointment as general passenger agent at Miami.

Harry A. Mintz, whose promotion to general freight agent of the Chicago & North Western system, with headquarters at Chicago, was reported in the *Railway Age* of July 10, was born at St. Paul, Minn, on November 6, 1889, and entered railway service in 1908 as an office boy of the Chicago, St. Paul, Minneapolis & Omaha (part of the North Western system). He served in various capacities until 1920 when he was appointed chief clerk of the tariff bureau, with headquarters at St. Paul. Two years later he was advanced to assistant general freight agent, and in 1929 he was promoted to general freight agent, with the same headquarters. In 1937 Mr. Mintz was appointed tariffs and divisions manager, the position he held at the time of his new appointment, effective July 1.

D. J. McGanney, assistant vice-president, system freight traffic, of the Southern Pacific at San Francisco, Cal., has been promoted to general traffic manager, with headquarters at Chicago, succeeding **Sherman K. Burke,** whose death on July 1 was reported in the *Railway Age* of July 10. Mr. McGanney will have supervision of freight and passenger traffic in the Middle Western, Eastern and Southeastern states. **L. A. Brockwell,** assistant to freight traffic manager at San Francisco, has been promoted to freight traffic manager, with headquarters at New York, succeeding **W. G. Peoples,** who has been transferred to San Francisco, while **F. C. Nelson,** freight traffic manager at San Francisco, has been transferred to Portland, Ore. **H. L. Smith,** assistant general freight agent, has been appointed assistant to freight traffic manager in charge of rates and divisions, with headquarters as before at San Francisco.

Wesley James Ficht, whose appointment as general passenger agent of the Seaboard Air Line with headquarters at Tampa, Fla., was announced in the *Railway Age* of June 26, was born on February 27, 1902, at Callery, Pa. Mr. Ficht entered railroad service in June, 1920, as clerk in the accounting department of the New York Central at Grand Central Terminal, New York, becoming ticket seller at that point in January, 1921. In March, 1924, he left the employ of New York Central to become assistant city ticket agent of the Seaboard Air Line at St. Petersburg, Fla., and one month later was promoted to city ticket agent at that point. He became district passenger agent at St. Petersburg in August, 1927, and in May, 1931, was transferred to Buffalo, N. Y. In April, 1932 Mr. Ficht was appointed traveling passenger agent at Pittsburgh, Pa., subsequently being transferred to Chicago and then to Tampa. He became district passenger agent at Atlanta, Ga., in February, 1936, and in December of the same year he was advanced to assistant general passenger agent at Norfolk. Mr. Ficht was promoted to assistant general passenger agent at Norfolk in December, 1940, and remained in that position until his recent promotion.

Julius J. Alms, whose promotion to general passenger agent of the Chicago, Burlington & Quincy, with headquarters at Omaha, Neb., was reported in the *Railway Age* of July 17, was born at Bensenville, Ill., on January 30, 1905, and entered railway service on the Burlington on September 26, 1921, as an office boy at Chicago, subsequently serving at that point as ticket stockroom clerk, reservations clerk and ticket agent of the general passenger office. On March 15, 1933, he was appointed special representative at the Burlington's Century of Progress exhibit in Chicago and one year later he was advanced to passenger rate clerk. On August 1, 1936, Mr. Alms was promoted to assistant chief clerk, passenger department, at Chicago, and on March 15, 1938, he was advanced to chief clerk, with the same headquarters. On September 1, 1942, he was promoted to assistant general passenger agent, with headquarters at Chicago, holding that position until his new appointment, which becomes effective on August 1.

Julius J. Alms

T. P. Hinchcliff, whose promotion to assistant general passenger traffic manager of the Chicago, Burlington & Quincy, with headquarters at Chicago, was reported in the *Railway Age* of July 17, was born at Amboy, Ill., on April 8, 1882, and entered railway service on January 1, 1899, as a clerk in the superintendent's office of the Colorado & Southern in Denver, Colo. On September 1, 1903, he was promoted to city freight agent at St. Louis, Mo., and on May 1, 1904, he was appointed traveling freight agent, with headquarters at Chicago. On July 1, 1910, he was appointed city freight agent for the Burlington at Cleveland, Ohio, and two months later he was transferred to Deroit, Mich. Mr. Hinchcliff was promoted to chief clerk to the assistant general freight agent at Chicago on March 1, 1915, and three years later he was advanced to general agent at Detroit. Two months later he was appointed chief clerk in the regional director's office at Chicago, and on March 1, 1920, he was reappointed general agent at Detroit. On January 1, 1925, he was promoted to assistant general passenger agent at Chicago and on January 1, 1926, to general passenger agent at St. Louis.

T. P. Hinchcliff

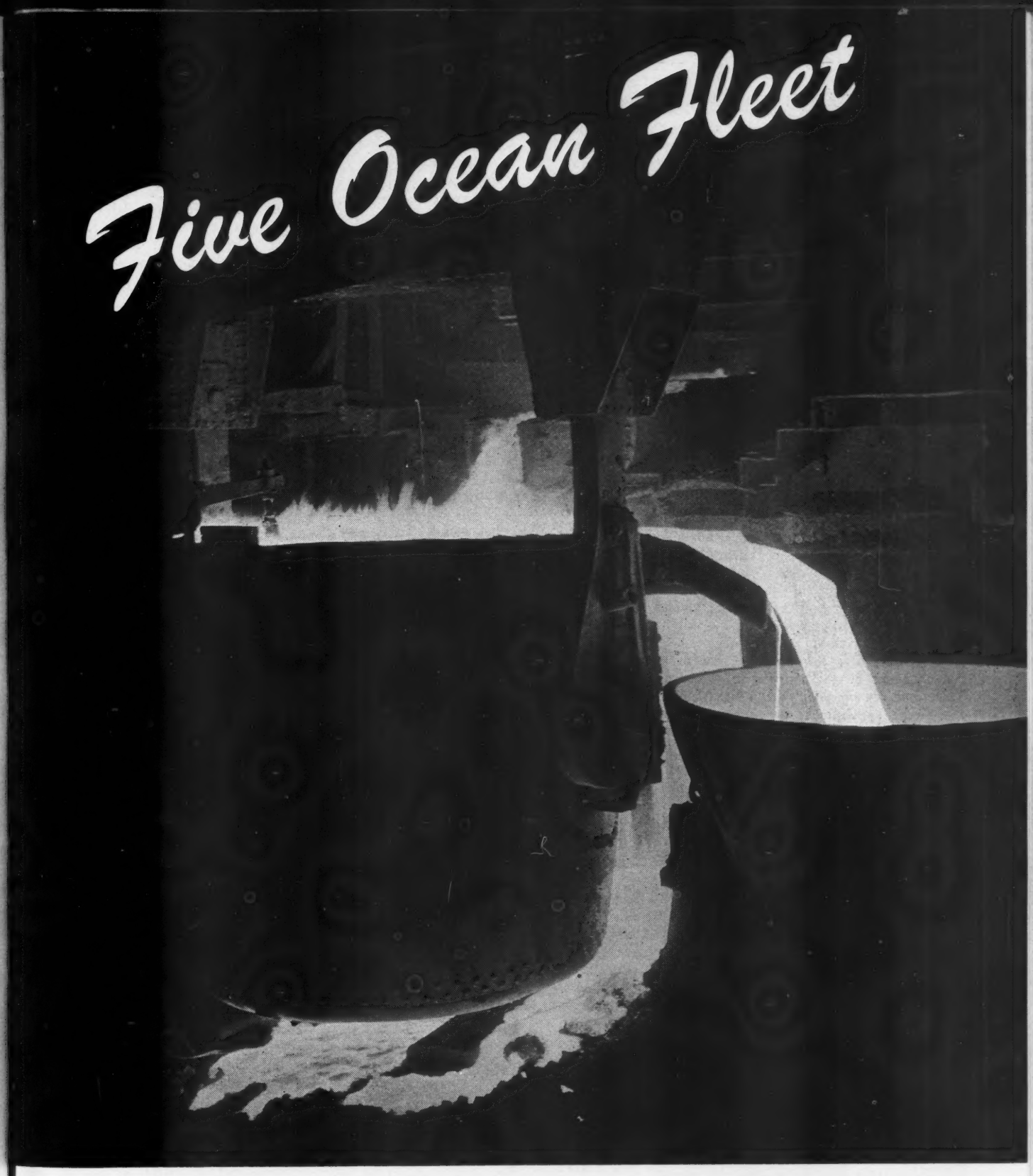
Mr. Hinchcliff was appointed assistant general passenger agent at Omaha on April 1, 1933, and in March, 1939, he was promoted to general passenger agent, with the same headquarters, holding that position until his new appointment which becomes effective August 1.

Justin J. Nolan, general passenger agent of the Pullman Company, has been promoted to assistant passenger traffic manager, a newly-created position, with headquarters as before at Chicago. **Howard Lowder,** assistant general passenger agent, at Chicago has been advanced to general passenger agent with the same headquarters, succeeding Mr. Nolan.

Mr. Nolan was born at Hartland, Ill., on April 19, 1898, and served in the U. S. Army during World War I. Upon his return he became connected with a commercial house in Chicago and a few months later, on August 18, 1919, he went with the Pullman Company as an audit clerk in the commissary department. A short time

Justin J. Nolan

News Department continued on next left-hand page



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later, Mr. Nolan was transferred to the passenger department, and during the next six years he broadened his experience by winter ticket selling in Southern resorts, becoming district passenger agent out of Chicago on June 16, 1925. On January 1, 1937, he was promoted to assistant general passenger agent, and in August, 1942, he was advanced to the position he held at the time of his new appointment, effective July 22.

William J. Kenealy, whose appointment as assistant passenger traffic manager of the Seaboard Air Line, with headquarters at Jacksonville, Fla., was announced in the *Railway Age* of June 26, was born on May 5, 1891, at Baltimore, Md., Mr. Kenealy entered railroad service on June 5, 1909, as information clerk of the Pennsylvania at Baltimore and in December, 1910, he entered the service of the Pullman Company, serving as conductor and ticket agent first at Baltimore, and then successively at Harrisburg, Pa., Philadelphia, and Jacksonville. In January, 1925, he went with the Seaboard as traveling passenger agent, with headquarters at Jacksonville, becoming district passenger agent at that point in August, 1927, and division passenger agent there in September, 1929. Mr. Kenealy was appointed general passenger agent at Jacksonville in January, 1937, and remained in that position until his recent appointment as assistant passenger traffic manager.

Forest G. Roberts, whose appointment as assistant freight traffic manager, of the Seaboard Air Line, with headquarters at Miami, Fla., was reported in the *Railway Age* of June 17, was born on May 22, 1881, at Swainsboro, Ga. Mr. Roberts entered railroad service on August 1, 1900, as a messenger of the Central of Georgia at Guyton, Ga., later serving as agent at Parish, Ga. On December 25, 1901, he became telegraph operator and agent of the Seaboard Air Line, with headquarters first at Woodford, S. C., and subsequently at Cayce, S. C., Savannah Yard, Ga., and Daisy. He left the employ of the Seaboard Air Line in April 1903, to become a clerk of the Macon, Dublin & Savannah, subsequently serving as telegraph operator and dispatcher, at Dublin, Ga., and Macon, successively. In January, 1906, Mr. Roberts went with the Atlanta & West Point as accountant in the auditor's office at Alanta, Ga., and in March, 1907, he left the services of that road to become rate clerk to the assistant general freight agent of the Nashville, Chattanooga & St. Louis at Atlanta, remaining in that position until March, 1908, when he became rate clerk in the office of the general freight agent of the Southern at Atlanta. Six months later Mr. Roberts returned to the employ of the Seaboard Air Line as rate clerk at Atlanta, Ga., and in June, 1912, he was transferred to Savannah, Ga. Subsequently, from November, 1912, to August, 1920 he served successively as traveling freight agent at Cordele, Ga., and commercial agent at Cordele and later at Greenville, S. C., being granted a leave of service on the latter date. He returned to the employ of the Seaboard Air Line as commercial agent at Tampa, Fla., in December, 1920, and in December, 1925, he was appointed district freight agent at Miami, becoming division freight agent at that point in January, 1927. Mr. Roberts was appointed assistant general freight agent at Miami, in June, 1927, and remained in that capacity until his recent appointment as assistant freight traffic manager.

John Daniel Makinson, whose appointment as general passenger agent of the Seaboard Air Line, with headquarters at Norfolk, Va., was announced in the *Railway Age* of June 26, was born on June 12, 1894, at Baltimore, Md., and attended Virginia Polytechnic Institute. Mr. Makinson entered railroad service in March, 1913, as stenographer for the general freight agent of the Seaboard Air Line at Norfolk, leaving the employ of that road in August, 1913, to become stenographer-clerk for the general passenger agent of the Norfolk Southern at Norfolk. He returned to the Seaboard Air Line at Norfolk in August, 1914, as refund clerk for the general passenger agent, and in June, 1916, he became division clerk for the auditor passenger accounts at Portsmouth, Va. In September, 1918, Mr. Makinson was appointed chief rate clerk in the general passenger department of the Norfolk Southern at Norfolk, and in August, 1920, he returned to the Seaboard Air Line to serve as rate clerk in the general passenger departmnt at Norfolk. He became road foreman of the Kempsville district of Princess Anne County, Va., in January, 1924, and in May of that year, he returned to his position as rate clerk in the general passenger department of the Seaboard Air Line at Norfolk. He was appointed assistant office manager at that point in August, 1927, and in April, 1932, became chief rate clerk, becoming chief clerk in July, 1936 and assistant to general passenger agent in December of that year. In December, 1940, Mr. Makinson was advanced to assistant general passenger agent, the position he held at the time of his recent promotion.

ENGINEERING & SIGNALING

A. G. Humphries, general scale inspector of the Southern Pacific at West Oakland, Cal., has been promoted to engineer, water service, with headquarters at San Francisco, Cal.

Thomas H. Friedlin has been appointed timber engineer of the New York Central system, with headquarters at New York. As timber engineer, Mr. Friedlin will have supervision of inspection and preservation of forest products.

Richard Warren Grigg, division engineer of the Cleveland division of the Pennsylvania at Cleveland, Ohio, has been transferred to the Long Island with headquarters at Jamaica, N. Y., succeeding **Morton S. Smith,** whose appointment as superintendent of the Logansport division of the Pennsylvania, with headquarters at Logansport, Ind., was reported in the *Railway Age* of July 3.

Charles McDiarmid has been appointed chief engineer of the Georgia & Florida, with headquarters at Augusta, Ga., succeeding **H. B. Holmes,** who has retired at his own request. The position of assistant chief engineer, formerly held by Mr. McDiarmid, has been abolished.

H. L. Holderman, supervisor of the Escanaba tie treating plant of the Chicago & North Western at Escanaba, Mich., has been promoted to acting division engineer of the Black Hills division, with headquarters at Chadron, Neb., succeeding **H. L. Barr,** who has been granted leave of absence to enter military service.

MECHANICAL

K. L. Selby has been appointed mechanical engineer of the Alton, with headquarters at Chicago, a newly-created position.

M. J. Brady, locomotive foreman of the Canadian National at Kindersley, Sask., has been promoted to master mechanic, with headquarters at Calgary, Alta., succeeding **A. H. E. Parkes,** who has been transferred to Edmonton, Alta., with jurisdiction over the Edson division. **W. G. McConachie** remains at Edmonton as master mechanic of the Edmonton division.

W. H. Longwell, master mechanic of the Baltimore & Ohio at Grafton, W. Va., has been transferred to Cumberland, Md., succeeding I. L. Harper, and **E. Stimson, Jr.,** master mechanic at Benwood, W. Va., has been transferred to Grafton, succeeding Mr. Longwell, while **R. A. Conner,** master mechanic at Holloway, Ohio, has been transferred to Benwood, succeeding Mr. Stimson.

PURCHASES AND STORES

W. M. Hughes has been appointed division storekeeper of the Baltimore & Ohio, Riverside, Baltimore, Md., succeeding **H. Lauman** who has been appointed senior assistant storekeeper, Mt. Clare, Baltimore, succeeding **G. H. Flagg,** who has been appointed acting storekeeper, bolt and forge shop, at Cumberland, Md.

OBITUARY

A. R. Howard, who retired in 1928 as secretary and treasurer of the International-Great Northern, with headquarters at Palestine, Tex., died recently at Houston, Tex.

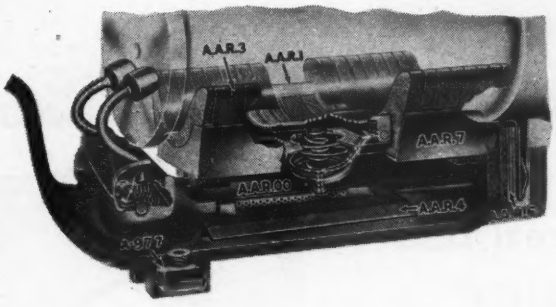
John M. Rosevear, who retired as general comptroller of the Canadian National at Montreal, Que., in 1930, died on July 15 at a hospital in Montreal. He was 73 years old.

The Augusta, Ga. works of the **Babcock & Wilcox Company,** has been granted a renewal of its Army-Navy "E" award for continued production achievement.

Modern High Capacity Tenders
REQUIRE POSITIVE JOURNAL LUBRICATION

HENNESSY

A. A. R. TYPE MECHANICAL JOURNAL LUBRICATORS SETTLE THE PROBLEM



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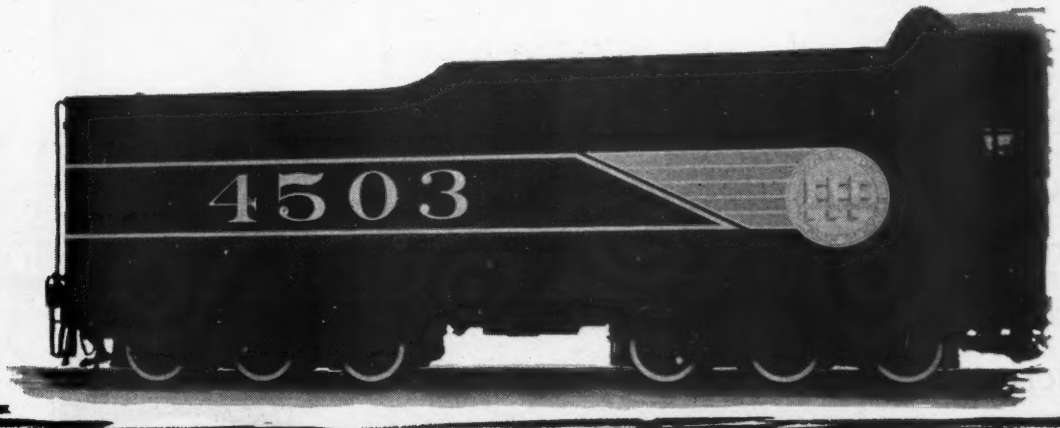

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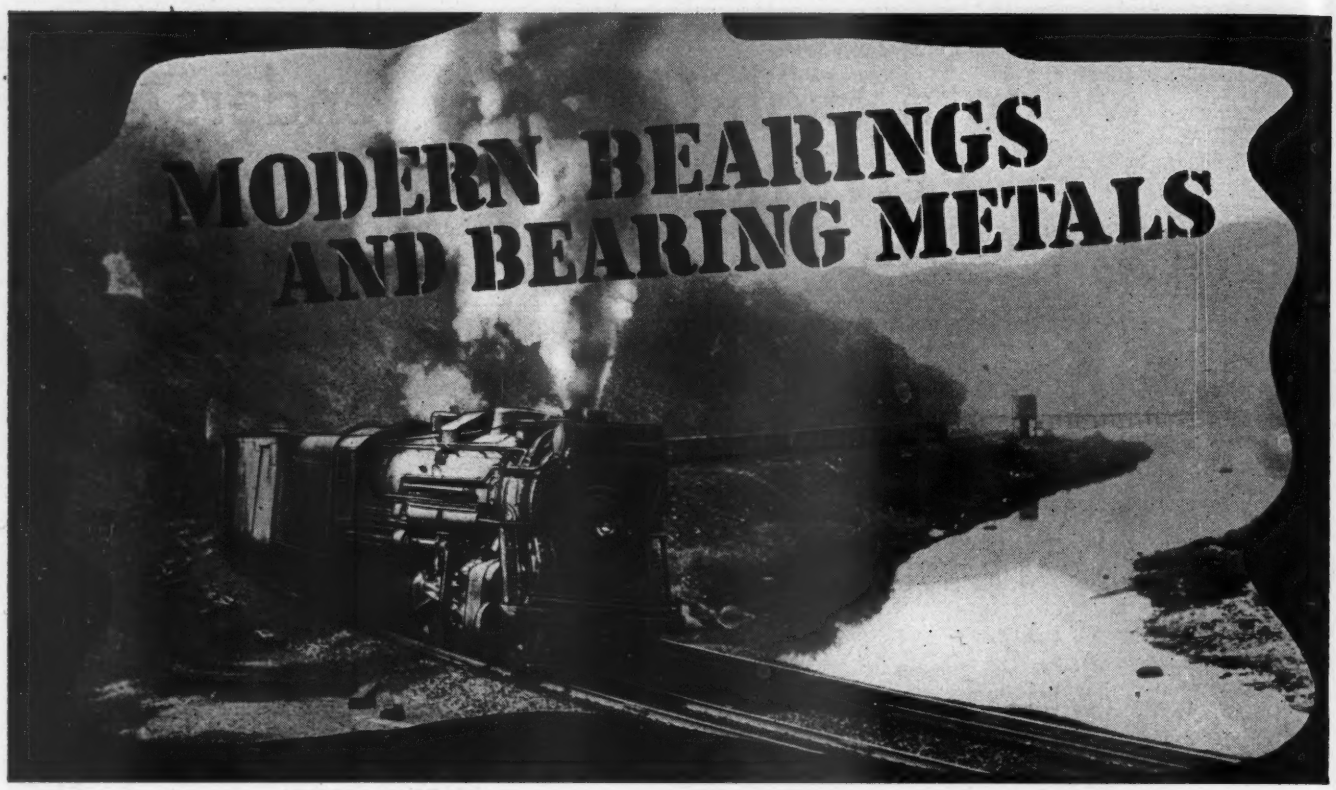
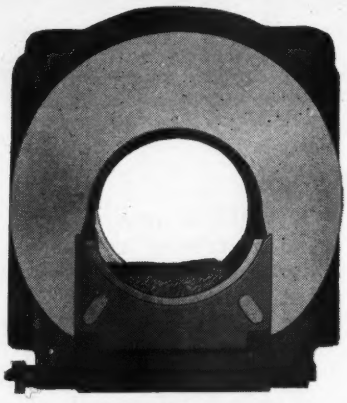
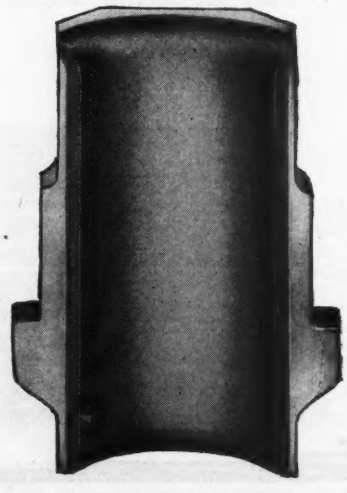


Magnus Satco-Lined Journal Bearings, Satco-Lined Lateral Hub Faces, and other Satco-Lined products are helping many railroads to meet the problems caused by today's extraordinary speed and load demands.

Satco Metal excels conventional-type metals used for bearing surfaces. It is harder, tougher, resists deformation in high-speed service, and has a lower coefficient of friction.



Magnus Satco-Lined Lateral Hub Face for engine truck, trailer and driving boxes.



Magnus Satco-Lined Journal Bearing.

MAGNUS METAL CORPORATION
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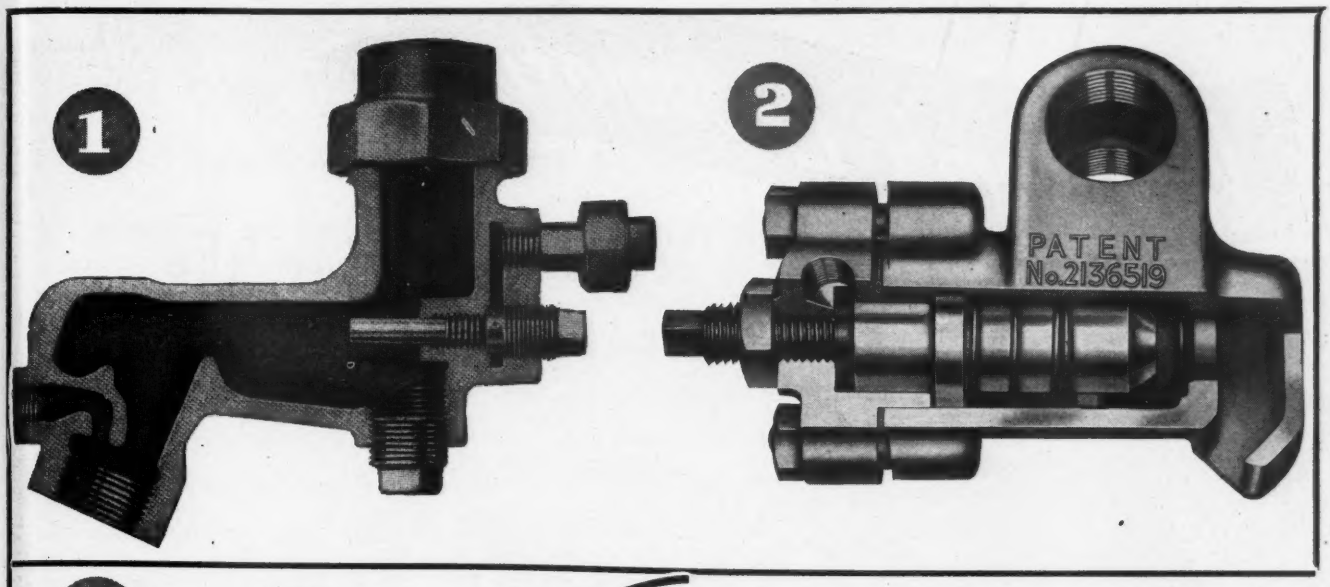

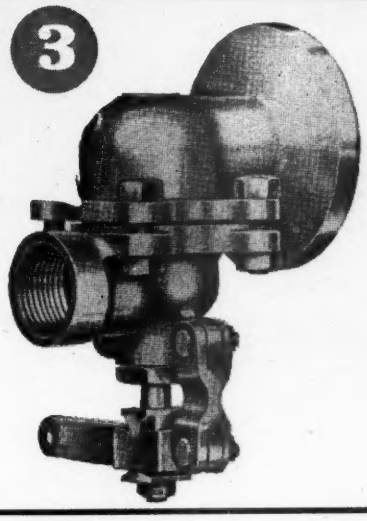

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5. T-Z 45 DEG. ANGLE SCREW TYPE COUPLER—The angle type allows the hose to assume a natural bend. The substantial corrugated hose clamp is designed to prevent turning or slipping off of the hose end.

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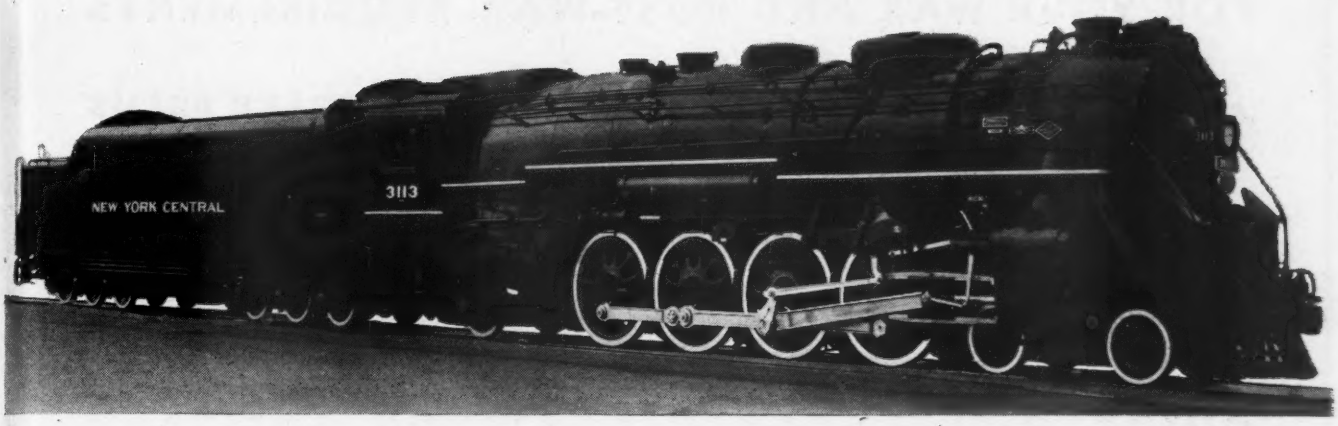

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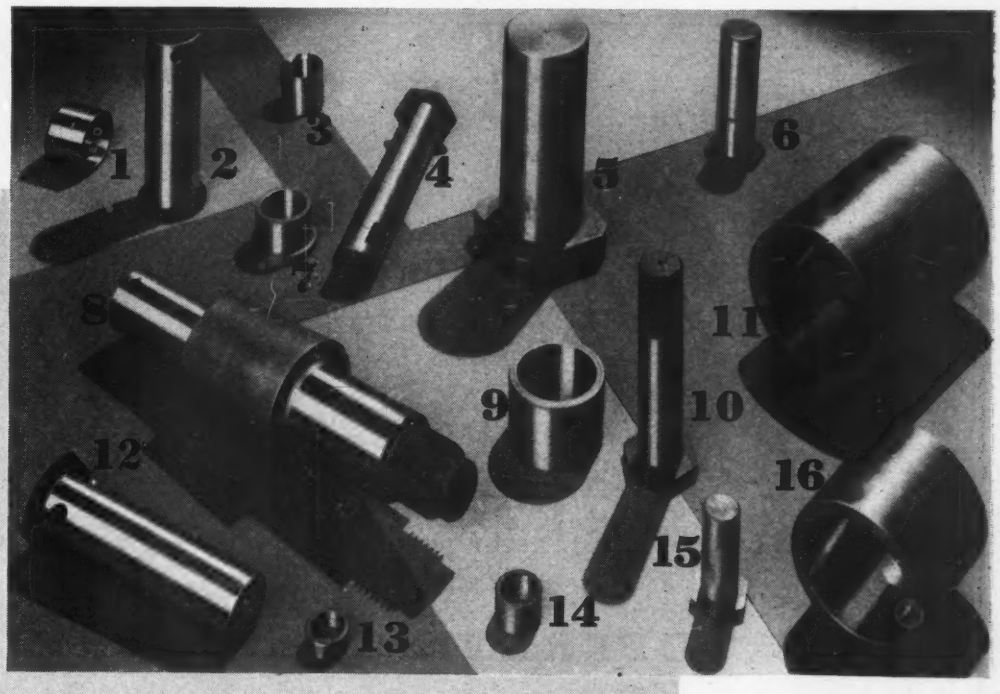

1. Frame bushing
2. Spring rigging pin
3. Trunnion bushing
4. Spring rigging pin
5. Tender swing-hanger bolster pin
6. Spring rigging pin
7. Frame bushing
8. Hanger lever pin for brake rigging (locomotive)
9. Spring rigging bushing
10. Diesel locomotive brake pin
11. Frame bushing
12. Brake hanger pin
13. and 14. Tender brake and passenger truck bushing
15. Tender brake and passenger truck pin
16. Frame bushing

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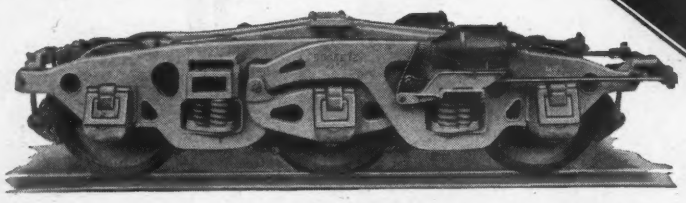

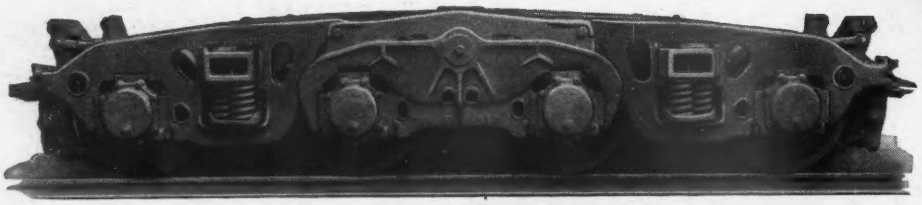

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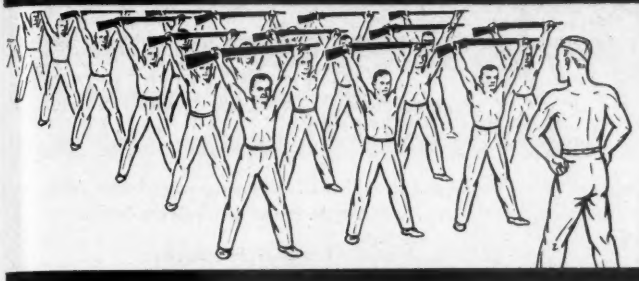

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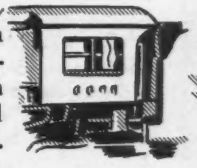

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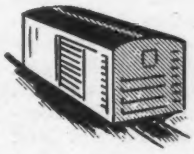

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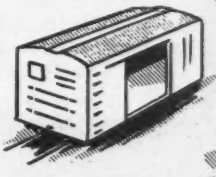

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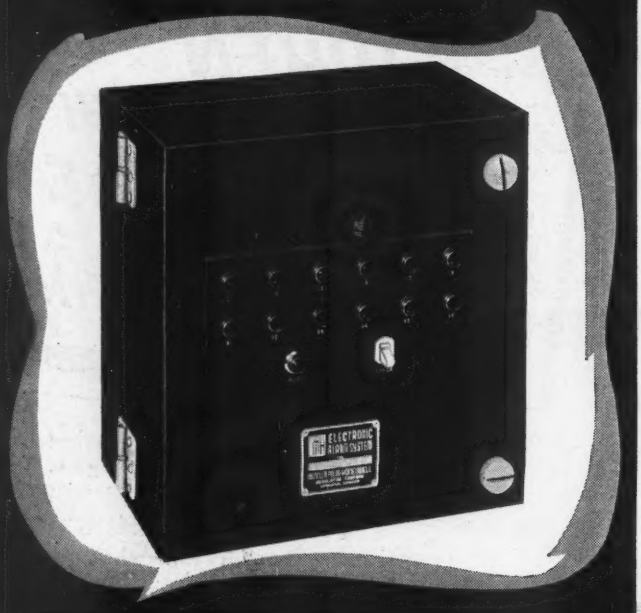

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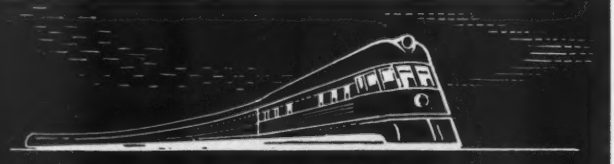

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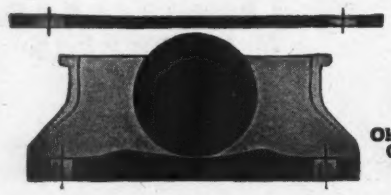

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OFFICIAL U. S. NAVY PHOTOGRAPH

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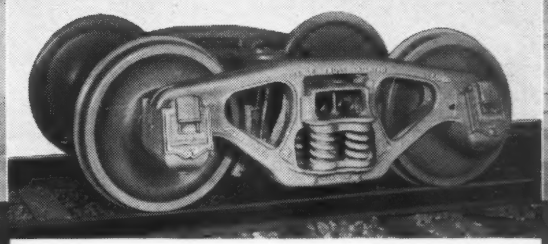

In this critical year for American railroads, many repairs and replacements must be made. Symington-Gould is helping the railroads maintain their magnificent record by supplying much of the railway equipment needed in 1943.

★

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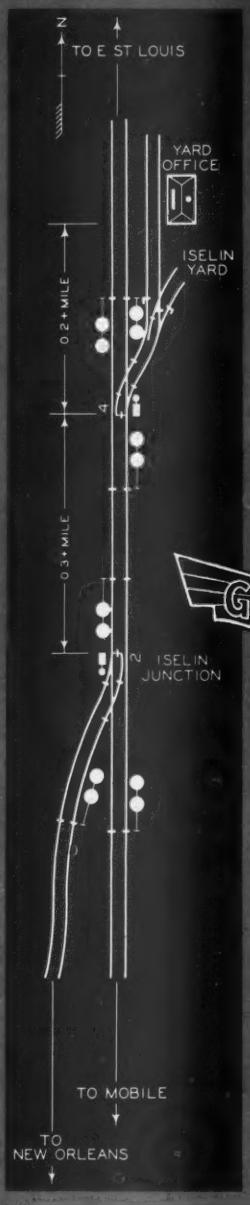
Iselin yard handles the interchange movements between the G.M.&O., Illinois Central and Nashville, Chattanooga & St. Louis; the breaking up and remaking of freight from St. Louis to Montgomery, Mobile and New Orleans and vice-versa, plus local freight in and out of Jackson.

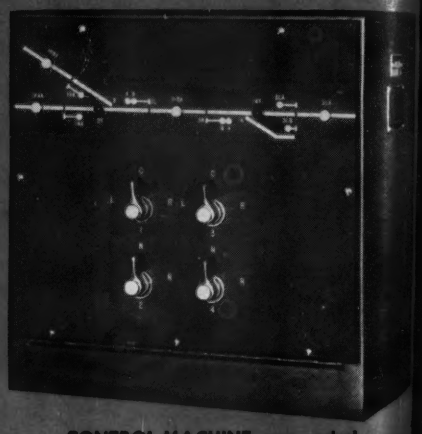
In order to expedite the movements of these freights in and out of the south end of the yard and at the junction and to expedite main line passenger train movements with the fullest assurance of safety, the power operated switches and associated signals were installed. They are controlled from a small, compact control machine located in the yard office.

(for details, see Railway Signaling, February 1942)

With these facilities, the operator has first-hand operating information and control of train movements: with a simple manipulation of miniature levers he eliminates train stops and starts and time required for hand-throwing switches, etc. — all with increased safety.

Have you a similar location where these advantages would be desirable? If so, ask our nearest District Office for details.





CONTROL MACHINE, non-coded, located in yard office

Looking north over switch 4, the yard entrance-departure switch

Looking north over switch 2 at Iselin Junction

GENERAL RAILWAY SIGNAL COMPANY
New York San Francisco ROCHESTER, N. Y. Chicago St. Louis
A-1597